85th

THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

COMP eNEWS

Summer 2022

$72 Million External Research Grants

IEEE T-BIOM Associate EiC

2022 ACM SIGMOD Research Highlight Award

Best Project Award 2022

HSI Forecasting Challenge

Academic-Industry Seminar

Cybersecurity Workshop

GEO Faculty Seminar Series

JUPAS Consultation

Mentorship Gathering

Discover the NEW
PEOPLE @ COMP
Tons of Inspiration in Every Story
Stories of COMP staff, students, alumni.

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Awards & Achievements

Prof. CHEN Changwen as IEEE T-BIOM Associate Editor-in-Chief

We are delighted and proud to announce that **Prof. CHEN Changwen**, Chair Professor of Visual Computing, has recently been appointed as Associate Editor-in-Chief (EiC) of IEEE Transactions on Biometrics, Behavior, and Identity Science (T-BIOM). Prof. Chen is the only editor from Hong Kong in T-BIOM.

Prof. Chen joined COMP in 2021 as Chair Professor of Visual Computing. His research expands a broad range of topics in multimedia communication, Internet of Video Things, multimedia systems, image/video processing, machine learning, and multimedia signal processing. Prof. Chen has been the Editor-in-Chief for IEEE Transactions on Multimedia from January 2014 to December 2016. He has also served as the Editor-in-Chief for IEEE Transactions on Circuits and Systems for Video Technology from January 2006 to December 2009. He has been an Editor for several other major IEEE Transactions and Journals, including the Proceedings of IEEE, IEEE Journal of Selected Areas in Communications, and IEEE Journal of Journal on Emerging and Selected Topics in Circuits and Systems. He has served as Conference Chair for several major IEEE, ACM and SPIE conferences related to multimedia video communications and signal processing.

T-BIOM publishes original articles on all aspects of biometrics (i.e. recognising people through their physiological or behavioural traits such as face, fingerprint, iris, and signature), including theory, applications, systems, and surveys. Prof. Chen will help EiC in selecting best papers and organising special issues in the newly emerging areas within the scope of T-BIOM.

Dr SHI Jieming received 2022 ACM SIGMOD Research Highlight Award

Our Assistant Professor **Dr SHI Jieming** and his collaborators from Nanyang Technological University, National University of Singapore and Hamad Bin Khalifa University received the 2022 ACM SIGMOD (Special Interest Group on Management of Data) Research Highlight Award, for the paper titled "No PANE, No Gain: Scaling Attributed Network Embedding in a Single Server". The work was also awarded Best Research Paper Award in VLDB (Very Large Data Bases Conference) in 2021.

This paper addresses the lack of scalability of existing attributed network embedding (ANE) techniques by proposing PANE, an effective and scalable approach for massive graphs in a single server that achieves state-of-the-art result quality on multiple benchmark datasets for two common prediction tasks: link prediction and node classification. Under the hood, PANE takes inspiration from well-established data management techniques to scale up ANE in a single server. Specifically, it exploits a carefully formulated problem based on a novel random walk model, a highly efficient solver, and non-trivial parallelization by utilizing modern multi-core CPUs. Extensive experiments demonstrate that PANE consistently outperforms all existing methods in terms of result quality, while being orders of magnitude faster.

The SIGMOD Research Highlight Award aims to make the selected works widely known in the database community, industry partners as well as the broader ACM community. It is a highly selective and prestigious award that showcases a set of research projects that exemplify core database research.

ACM SIGMOD is concerned with the principles, techniques and applications of database management systems and data management technology. Its members include software developers, academic and industrial researchers, practitioners, users, and students. SIGMOD sponsors the annual SIGMOD/PODS conference, which is one of the most important and selective in the field.

Best Project Award 2022

COMP successfully organised the online Best Project Award Competition on 18 June 2022 to recognise students' outstanding performance in their Capstone Projects. Six shortlisted students joined the final contest and competed for the awards. The panel of judges was formed by our faculty members and representatives from the technology sector, including Hong Kong Cyberport, Hong Kong Science and Technology Parks, and InfoTech Services (HK) Limited.

Each student was given fifteen minutes to present the project, finish a demonstration and undergo Q&A. All the projects fully demonstrated the depth of background study, breadth of the design and methodology, as well as excellent implementation and evaluation. Also, the high level of presentation skills shown by students was impressive.

After careful and thorough consideration, our judges selected the winners and a virtual award presentation ceremony was held accordingly. In addition to the Best Project Awards, two contestants were selected to receive the InfoTech Job Market Driven Scholarship, based on the quality and relevancy of their projects in adopting hot skills highly sought by the IT industry.

We are proud to present the awardees here and let's take this opportunity to congratulate them on receiving the awards.

1st WANG Ka Man

Touch-free User Interaction

2nd German SHARABOK

Enhancement of Amblyopia Treatment and Monitoring in Children via an Ocular Gymnas-tics Application

3rd LEE Chi Kin

Game Development

AWARDS & ACHIEVEMENTS

PolyU's Student Developer Community Thrives

When Two COMP International Students Swung into Action

Google Developer Student Clubs (GDSC) are community groups for college and university students interested in Google developer technologies. By joining a GDSC, students grow their knowledge in a peer-to-peer learning environment and build solutions for local businesses and their community.

Scottie YOON and **Rakshit JAIN** are both international students at COMP. The former is a Korean student who has just completed her bachelor degree this year, and the latter is an Indian student who is about to enter the fourth year. Such an unexpected combination makes up for the leadership that revitalised and led PolyU's growing student developer community, Google Developer Student Club (GDSC). They established a technology learning community of more than 350 students and staff and organised an international inter-university Hackathon event - PolyHack 2022, in just four months.

A lunch became the starting point of the story

Scottie and Rakshit didn't know each other at first. Although they both studied at COMP, they never met because of their different years. However, the two share the same passion and vision for building a developer community within the school. At the same time, the two of them applied to GDSC Taiwan headquarters for building GDSC at PolyU and finally got to know each other under the introduction of the headquarters. After a lunch meeting, the two students with the same ambition and determination decided to work together in revitalising GDSC, with Scottie as the lead and Rakshit as the vice-lead.

Different but the Same

Later, another COMP local student, **NG Wang-Hei, Romeo**, also joined the team, and the team's diversity increased again. Recruiting other core members has a very clear goal: to form a diverse and enthusiastic team. After two months of selection from 60 applicants, a core team of 19 students from 8 countries, different faculties and disciplines was finally formed. The ratio of males to females was close to 1:1, breaking the stereotype that males usually dominate tech organisations. The large team were selected on their ambitions, technical ability, and leadership potential. These students worked together to teach, excite and engage both tech and non-tech students and staff of PolyU. Even though their backgrounds are very different, they all share the same vision: build a platform that welcomes peer-to-peer learning, support extracurricular projects, learn about new technologies, and expand PolyU's developer community.

Obstacle before touchdown

Since GDSC was first established at PolyU in 2020, there were no predecessors to learn from, and the headquarters responsible for support was far away in Taiwan, so they faced many difficulties in the beginning. Rakshit said that after they confirmed the core team in October, the first event was held in November. There were many conflicts among the members during the preparation of the first six events, and it was not until the seventh event that the most fitting cooperation model was formed. Scottie shared their cooperation method. The team prepares the event in small groups. Each member divides labour and power according to their expertise. First, it is easier to reach a consensus. Second, the most experienced members make decisions, and finally, the leads ensure everything works well. She also said that because all members are well aware of GDSC's vision, a consensus can often be reached as long as everyone follows the same belief.

Big expectations, bigger challenges

When it comes to the highlight of GDSC, it must be the international inter-university competition, **PolyHack 2022**, held from 21 May to 5 June. The difference between this competition and the typical Hackathon is the long event period, the introduction of the mentorships, and the unique lineup of 16 live workshops and panel talks. PolyHack2022 was an ambitious student-initiated and student-run project that welcomed 41 industry professionals for events that ranged from Gamefi, Smartcity, Fintech panel talks, Blockchain Crash Courses, ex-CEO fireside chat, one-to-one mentorships sessions, the art of pitching masterclasses, and more. A typical Hackathon only lasts a few days. However, to reach the vision of developing higher-quality projects, which may even have the potential for commercialisation, Scottie and the team pushed for a 2-week intense hackathon with three total elimination rounds. However, high expectations made the team face great challenges. Scottie mentioned that due to the tight schedule, when they started looking for sponsors, apart from a clear concept and vision, the time, itinerary and details of the competition were not set, and she was scared during the ideation and preparation stage. After finding the first sponsor, they knew there was no going back, but to speed up. Fortunately, as more participants signed up for the event and the overall details became clear, other sponsorships followed. In the end, PolyHack 2022 was not only successfully concluded, but more than 300 university students from all over the world participated in it, and the atmosphere of the PolyU developer community was also pushed to its peak.

Breaking the barriers

The most common situation encountered when holding online events is passive participation. Especially in a community that focuses on communication like GDSC, motivating members is the first part. As a COMP student, Rakshit knows that IT people are generally slow to warm up, so he proposed introducing the buddy system. Active members supported and encouraged other members and triumphantly made the community mingle together in a short time. Rakshit also acted as a "matchmaker" who helped participants form teams when they couldn't find one. For Scottie and Rakshit, the gain in the whole process is to connect with many people from academia and industry, as well as friends who support them. A huge social network has been built, and a PolyU tech community has been developed.

Future plan

Scottie, who graduates this year, is about to join society. This experience has accumulated an industry network for her, and she will stay in Hong Kong to start her career as an engineer. Rakshit will step down from the vice-lead of the GDSC in the next academic year and assist in preparing the next PolyU GDSC core team as a consultant. With no foundation, they successfully took the first step, established a student developer community on campus, and hoped to continue the momentum.

Give full play to the computing knowledge for better communication

Our bachelor programme focuses on foundational and all-round learning. Each student gains a taste of various areas of computing in the first year and then chooses a major study according to personal interests and development. With the basic knowledge, Scottie and Rakshit have various advantages in leading the team. For example, some core members come from School of Design, Faculty of Applied Science and Textiles, and Faculty of Business. Members whose major in computing can teach and assist them in programming, as well as integrating different tech projects. On the other hand, Scottie also mentioned that because of their background in computer science, they were more readily accepted when looking for sponsorships. However, knowledge is just the lubricant that makes the plan smooth, and a positive attitude and good communication skills drive the whole thing on.

In recent years, PolyU has promoted the all-round development of students and encouraged holistic study. In addition to teaching knowledge, COMP provides opportunities for internships, overseas learning and exchanges, allowing students to train communication skills and broaden their horizons in these experiences. Before the start of the new academic year, students may plan a more diverse school life according to their study situation, abilities and interests and welcome the new year proactively.

Always remember the reason why you are here.
- Scottie

Having vision and motivation is the most important
- Rakshit

LEARNING & TEACHING

COMP Mentorship Programme 2021/22 Career Talk cum Mentorship Gathering

COMP and the Computing Alumni Association (CCA) co-organised a career talk cum mentorship gathering on 13 May 2022. The topic of the career talk this time was "Coding in Action: from TDD to BDD", which covered an overview of practical software development. The event echoed the mentorship kick-off in January 2022 which aims to prepare students for future careers and line students up with professional practitioners and industry executives.

Dr LEONG Hong Va, our Associate Professor and Associate Head (Teaching & Learning) gave a warm welcome to all the participants. **Ms Silvia IHENSEKHIEN**, Hon. Secretary of Computing Alumni Association (CAA), at the same time a mentor, then introduced the speaker **Mr Raymond CHEUNG**. Raymond is a Software Engineer at Societe Generale and an alumnus of COMP. He has extensive experience in developing various scalable systems in risk management and trade captures, such as pre-trade negotiation services of equity derivative trading; data pipelines to ingest and transform data and trade captures optimisation.

Raymond is now based in London and joined us online to share first-hand experience in the overseas job market and some useful tips for interviews. In the Q&A session, Raymond further discussed the future work trends in the IT industry, and it was delightful to see the active participation of our students. The talk was engaging and inspiring, which provided students with more insights into career development.

Various breakout rooms were arranged for both mentees and mentors to exchange ideas and gain personal advice. We hope that students can keep up the momentum and strengthen their skills to stand out in the competitive job market.

Coding in Action: From TDD to BDD

# Raymond Cheung
Software Engineer
Discord kkrc#6561

Cybersecurity Workshop for Undergraduate Students

Online teaching and learning (T&L) becomes indispensable due to the COVID-19 pandemic these years. There are challenges in the laboratory-based T&L setting, where technical difficulties may not be easily and promptly solved in a remote manner. **Dr Dennis LIU**, our Teaching Fellow, adopts the "virtual laboratory" approach in his cybersecurity courses and workshops.

log4j-2 Vulnerability Workshop

On 9 June 2022, Dr Dennis LIU and **Mr LEUNG Chi Yan Alven**, our MPhil student, conducted an online cybersecurity workshop for our undergraduate students using the virtual laboratory approach. In the workshop, Dr Liu shared with the participants the vulnerability of log4j2, a Java-based logging framework. he attack flow was demonstrated in detail and the participants were able to experience it in the virtual machine (VM) environment on their own computers. At the end of the workshop, Dr Liu also shared with the participants the remediations of this vulnerability.

These workshops are under the online cybersecurity workshop series for our undergraduate students were organised in June, which helps our undergraduate students to explore various technical aspects of cybersecurity and be competent to pursue a career in the field in future.
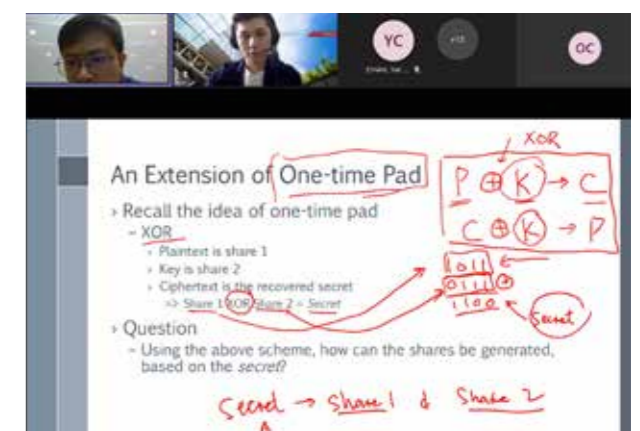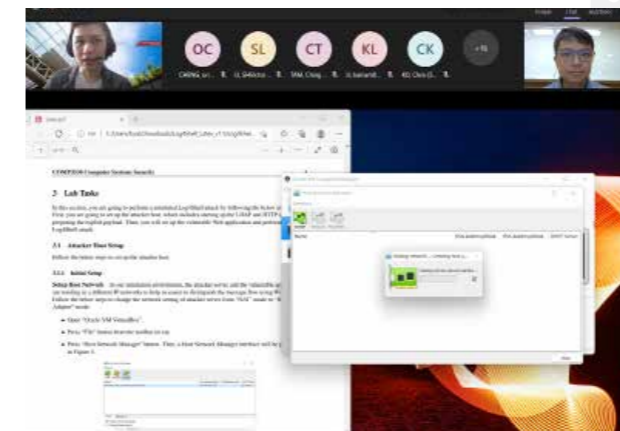
How to Share a Secret in the Digital World Workshop

On 29 June 2022, Dr LIU and Mr LEUNG shared with the participants how secret can be securely shared in the digital world and its security considerations were discussed. Visual secret sharing and threshold secret sharing techniques were introduced. Through program demonstrations and hands-on exercises in the VM environment, the participants were able to have a taste of the algorithms and understand the principles behind them. Finally, extensions of the concepts and applications were discussed and insights were given to the participants for their future pursuits in the domain.

> *Virtual laboratories allow students to work on laboratory tasks on their own computers, using the virtual machine technology, with minimum setup overhead and technical support. The benefits are realized in T&L for cybersecurity, since VM offers a self-contained and more secure environment for performing cybersecurity related tasks.*

HSI Forecasting Challenge

We are pleased to share that the result of Hang Seng Index (HIS) Forecasting Challenge organised by **Dr Henry CHAN**'s team has come out. The competition was open to all COMP students and the Computing Alumni Association members, which aimed to motivate students to apply the knowledge they have learned to a real-world financial scenario.

In the competition, participants needed to predict Hang Seng Index for Friday's trading days from 25 March to 29 April by any method. The performance was evaluated by the average mean absolute error of their best 4 predictions. In addition, a brief reason or justification for their prediction was provided by each participant to explain their methods.

It is believed that the participants of HIS Forecasting Challenge have gained practical experience that could help them to make use of the computer science knowledge in the financial sector.

Winners and Learning Reflections

First Prize

CHAN Ho Chuen (BSc (Hons) in Enterprise Information Systems, Year 2)

Ho Chuen obtained the results by analysing the financial news to determine if there is a positive/negative impact. Then he used some HSI prediction charts for reference to predict the value. He learned some new financial and statistical knowledge, such as Autoregressive Integrated Moving Average (ARIMA) and Autoregressive Integrated Moving Average with Explanatory Variable (ARIMAX), during the competition.

Second Prize

CHAN Shek Kwan (MSc in Information Technology, Year 1)

Shek Kwan used bi-directional Long Short-Term Memory (LSTM) and Convolutional Neural Networks (CNN) with 10 years of historical data to retrieve the results. He has learned how to apply machine learning techniques in the financial sector and keep his mind flexible.

Third Prize

WONG Chun Hei (BSc (Hons) in Computing, Year 4)

Chun Hei used LSTM to predict HSI. However, he has found that some indicators can be added to his prediction model which can improve the prediction results. Those indicators he has explored would help him on his final year project.

Over $72 Million External Research Grants Secured in 2020/21

Department has secured external funding of over $72 Million in the academic year 2020/21, thanks to the best endeavour made by our academic teams. The awarded projects in local and national programmes are as follows. Other external funding comes from collaborative projects, industry and donation.

RGC General Research Fund

Project Title	Principle Investigator	Funding Awarded (HKD)
Decentralized Model Learning with Unlabeled Streaming Data for Edge AI	Prof. CAO Jiannong	$1,093,580
Collaborative Training in Resource-constrained Edge Networks via Generative Mutual Knowledge Transfer	Prof. GUO Song	$1,093,580
Attacking Black-box Recommendations via User Profiles Generation under Hierarchical-structure Policy Gradient	Prof. LI Qing	$1,093,580
Towards Scalable Multi-Objective Bilevel Optimization: Foundations, Methodologies and Applications	Prof. TAN Kay Chen	$1,093,580
Security Analysis of Cross-Platform Blockchain DApps and its Applications	Dr LUO Xiapu	$1,093,580
Providing Novel Authenticated Query Services by Exploiting the Blockchain Technology: Privacy-Preserving Graph Query and Efficient kNN Query	Prof. XIAO Bin	$1,040,256
Protocol Adaptation for Real-Time Streaming: Architecture, Algorithms and Implementation	Prof. WANG Dan	$926,400
Conversational Question Answering: When Question Answering Meets Multi-Round Conversation	Prof. LI Wenjie	$838,393
Efficient and Post-Quantum Lattice-Based Confidential Transaction Protocols in Blockchain Systems	Dr GAO Shang	$838,393
Opportunistic Federated Learning over Internet of Vehicles	Dr XU Wenchao	$838,393
Towards IoT-Oriented Sparse Antenna Arrays with Minimal Resolution Redundancy: Theory, Design and Application	Dr YANG Lei	$563,714

RGC Early Career Scheme

Project Title	Principle Investigator	Funding Awarded (HKD)
Algorithmic Fair Division under Combinatorial Constraints	Dr LI Bo	$740,067
Social-Transformers: A Deep Pre-training Framework for Social Media Language Understanding	Dr LI Jing	$740,067
GPU-based Approximate Query Processing of High-Order Proximities on Billion-Scale Graphs	Dr SHI Jieming	$740,067
Adversarial Robustness of Graph-based Anomaly Detection under Structural Attacks	Dr ZHOU Kai	$711,128

Innovation and Technology Fund

Project Title	Principle Investigator	Funding Awarded (HKD)
AI-powered Conversational Analytics Tools for Social and Community Services	Dr WU Xiaoming	$ 2,004,007
An Innovative Hybrid Intelligence Web System for the Hong Kong Stock Market	Dr CHAN Chun Bun Henry	$ 995,900

National Natural Science Foundation of China Funding Schemes

Project Title	Principle Investigator	Funding Awarded (RMB)
Theory and Methods of Evolutionary Computation for Intelligent Logistics	Prof. TAN Kay Chen	¥910,000
Research on Robust Recommendations against Adversarial Attacks in Social Network	Dr FAN Wenqi	¥300,000
Algorithm Design and Analysis for Public Resource Fair Allocation	Dr LI Bo	¥300,000
Study on Concurrent Communications in Large-scaled Low-Power Wide-Area Networks	Dr XIA Xianjin	¥300,000
Structural Attacks to Trust Analysis Systems in Singed Social Networks	Dr ZHOU Kai	¥300,000
Approaches and Core Techniques for Protecting Secret Keys of Cryptographic Algorithms in Blockchains against White-box Attacks	Dr LUO Xiapu	¥87,000

GDSTC Key Technologies R&D Programme

Project Title	Principle Investigator	Funding Awarded (HKD)
Edge Computing Open System for Human-Machine Collaboration: Research, Development and Applications	Prof. GUO Song	$2,683,422

Shenzhen Basic Research Funding Scheme (深圳市科技創新委員會基礎研究項目) by Shenzhen Municipal Science and Technology Innovation Commission

Project Title	Principle Investigator	Funding Awarded (RMB)
Self-supervised Learning for Understanding Large-scale 3D Dynamic Point Clouds	Dr YANG Bo	¥540,000

HK Scholar Program

Project Title	Principle Investigator	Funding Awarded (HKD)
Distributed Intelligence Framework for Collaborative Edge Computing	Prof. CAO Jiannong	$378,000
Knowledge Reasoning in Natural Language Processing	Prof. LI Wenjie	$378,000

(*RMB:HKD exchange rate = 1:1)

Research Seminar

To keep our academic staff members and students up-to-date with the leading-edge technical knowledge in computing related disciplines, as well as assist them in gaining exposure to broad range of research topics, COMP regularly invites scholars of different specialisations' to present their latest research findings.

Date	Seminar Topic	Speaker	Institution
1 April 2022	Realistic Computational Design Rendering and Synthesis	Dr LI Ping	Department of Computing The Hong Kong Polytechnic University
15 June 2022	From Software to Hardware and Back: A Ten-Year Retrospective of Backscatter Systems	Dr SHANGGUAN Longfei	Microsoft Cloud & AI USA

Distinguished Seminar Series on Data Science & Artificial Intelligence

Co-organised with the PolyU Research Centre on Data Science and Artificial Intelligence (RC-DSAI), we have launched a Distinguished Seminar Series on Data Science and Artificial Intelligence since March 2021. World-renowned scholars were invited to share the latest technological development of data science and artificial intelligence with us.

Dr ZHANG Zhengyou
Chief Scientist, Tencent
Director of Tencent AI Lab & Tencent Robotics X Lab
China

7 Apr 2022

"Digital Human & Integrated Physical-Digital World"

Prof. LIU Huan
Professor
School of Computing and Augmented Intelligence
Arizona State University
USA

6 May 2022

"Social Media Mining: A Bountiful Frontier in AI and Data Science"

EVENT HIGHLIGHTS

GEO Faculty Seminar Series

The online Faculty Seminar Series organised by Global Engagement Office has been successfully delivered in May. Along with Dean of Faculty of Engineering and other Department Heads, **Dr LEONG Hong Va**, our Associated Head, represented COMP in the FENG session on 16 May. Around 170 audiences attended the session.

The seminar series was tailor-made for potential local secondary-school applicants, their parents and teachers to attract more talented students to pursue their undergraduate studies at PolyU. Dr Leong introduced the latest development of COMP, salient features of our programmes, learning experiences and career pathways. As one of the most popular undergraduate programmes at PolyU, we received a number of enquiries about the BSc (Hons) Scheme in Computing & AI during the event, which also enabled us to get first-hand information on the demand and interest of present-day secondary-school students.

JUPAS Consultation Day 2022

To provide JUPAS applicants with the latest admission information on COMP undergraduate programmes and to help them strategically adjust their JUPAS plans in pursuance of increasing admission chances for the desired programme, COMP hosted an Info Seminar during the PolyU JUPAS Consultation Day on 22 May 2022. The event drew 130 participants.

During the event, **Dr LEONG Hong Va**, our Associate Professor and Associate Head (Teaching & Learning) delivered an informative introduction to the features, curriculum and entrance requirements of BSc (Hons) Scheme in Computing & AI. The programme comprises of three different major degree programmes, namely BSc (Hons) in Computer Science; BSc (Hons) in Enterprise Information Systems; and BSc (Hons) in Financial Technology and Artificial Intelligence. Students admitted to the programme will complete a common Year 1 curriculum. In the second year of study, they will select their major and there is no quota limit. In Year 3 and Year 4, the programme will further strengthen students' knowledge and sharpen their skills via internship opportunities.

The seminar was followed by a fruitful Q&A session, in which students were eager to seek professional advice from Dr Leong. Dr Leong addressed students' immediate concerns and encouraged students to develop a global vision and the ability to learn continuously, in order to maintain competitiveness in the rapidly changing computing world. We believe the takeaways from this seminar for JUPAS applicants were constructive.
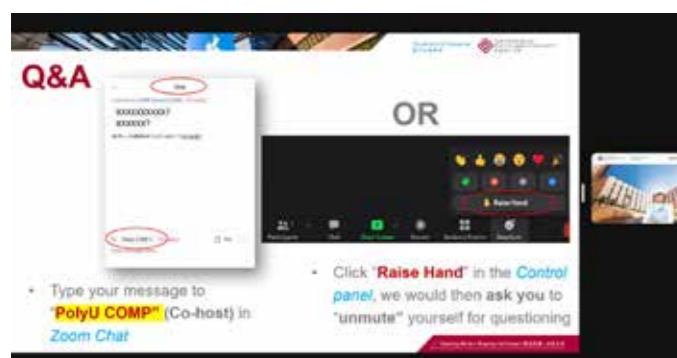
MSc in Blockchain Technology Info Seminar 2022

The Info Seminar for MSc in Blockchain Technology (MScBT) was smoothly concluded on 11 May 2022, attracting more than 120 participants. The Info Seminar was delivered on Zoom and live-streamed in Mainland China.

Dr Xavier DE CARNÉ DE CARNAVALET, Research Assistant Professor, started the info seminar with a brief introduction to the background and applications of Blockchain Technology in the industry and Metaverse. **Dr Korris CHUNG**, Associate Professor, gave an overview of the Department of Computing, while **Dr Daniel LUO,** Associate Professor and Programme Leader, further explained the programme structure and curriculum.

MScBT is the first taught master programme in Hong Kong specialising in Blockchain technology. It is designed for professionals proficient in blockchain and related technologies to analyse, design, implement and evaluate Fintech and other related systems, products and services. The programme also covers key Fintech technologies and applications.

Blockchain technology was emphasised by the Hong Kong Monetary Authority in its "Fintech 2025" strategy and the "Enhanced Competency Framework on Fintech" launched last year, which has demonstrated the great potential of this area. Upon completion of this programme, graduates will be equipped with the knowledge and skill set that could enhance their competitiveness in the career market.
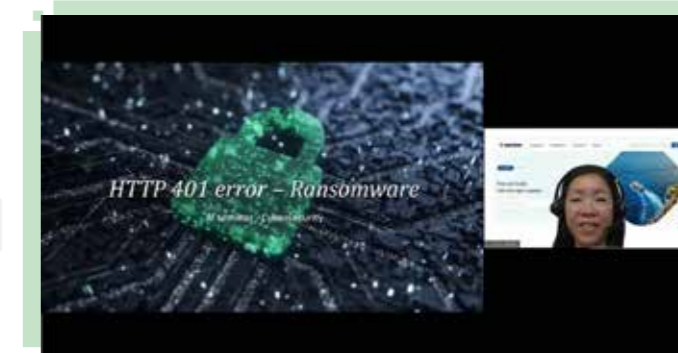
CAA x COMP Academic-Industry Seminar - Cybersecurity

The third seminar of the "COMP x CAA Academic-Industry Seminar Series" was held virtually on 27 April with the topic of "Cybersecurity". Around one hundred students and alumni participated in the session. The seminar series is co-organised by COMP and the Computing Alumni Association (CAA) to encourage knowledge exchange between academia and industry.

Dr Daniel LUO, Associate Professor of COMP, started the seminar with his recent research on defending against sophisticated mobile malware. He is known for his expertise in mobile security and smart contract security in Hong Kong, and his research interests include mobile, IoT and system security and privacy, blockchain and smart contract security, as well as network security and privacy. He introduced their systems that can unpack hardened mobile malware and their proof-of-concept (PoC) tool that demonstrates how easily mobile malware can evade existing detection

The industrial speaker this time was **Ms Silvia IHENSEKHIEN**, Chief Information Security Officer of ShipServ, at the same time an awardee of 2019 COMP Alumni Award and mentor from COMP. Silvia is one of the few female leaders in the shipping eCommerce industry in Hong Kong, her hands-on experience in internet security is also well recognised. She gave an in-depth introduction to ransomware - one of the most common cyber-attacks, and provided helpful advice on how to prevent ransomware attacks.


In the discussion that followed, our faculty members concurred that cybersecurity is critical and found new angles on cybersecurity applications. **Dr Henry CHAN**, Associate Professor and Associate Head (Partnership & Collaboration) of COMP hosted the seminar and Q&A session.

CAA x COMP Academic-Industry Seminar - Data Analytics

Committed to encouraging knowledge exchange between academia and industry, COMP and the Computing Alumni Association (CAA) co-organised the fourth seminar of the "COMP x CAA Academic-Industry Seminar Series" via Zoom on 21 June 2022. With more than 100 participants comprising our students, faculty members and alumni, the seminar was started with a warm welcome by **Dr Henry CHAN**, Associate Professor and Associate Head of COMP.
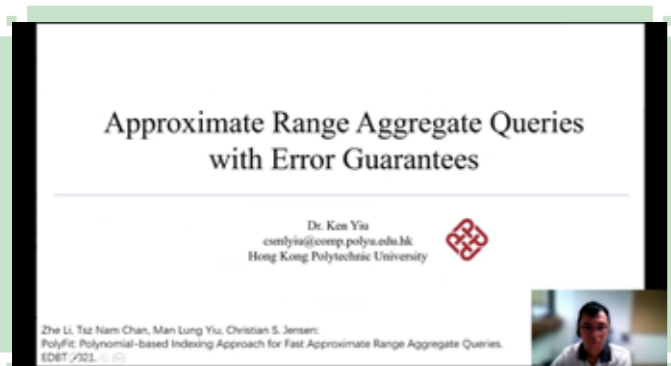
Dr Chan then introduced the first speaker, **Dr Ken YIU**, Associate Professor, to present his research about approximate range aggregate queries with error guarantees. The research was published at the EDBT conference in 2021. Ken demonstrated different examples and models to introduce the application of range aggregate query. His research interest includes databases, in particular, query processing techniques for spatiotemporal data and multi-dimensional data.

Mr Gary TANG, Associate Data Scientist of OOCL, at the same time an outstanding graduate of COMP, was invited to share practical experience with the data science industry. Gary showed great interest in a data science career before he graduated from COMP. He shared his insight into the future trend, roles and duties of a data scientist and the challenges. At the end of his presentation, he provided handy tips on how to equip oneself in the job searching process.

The seminar was well received by the participants, who also actively participated in the Q&A session and were especially interested in the data science career path. We believe the seminar can inspire students who wish to pursue development in this field.

New CAA Logo

Computing Alumni Association (CAA) organised a Logo Design Contest to celebrate the 85th anniversary of PolyU. The logo designed by our student **Haris MANSOOR** (BSc (Hons) in Enterprise Information Systems, Year 2) stood out from all other contestants and won the contest. His logo concept emphasises the initials of the association as well as the significance of their work. The half globe-like structure on the left represents their global exposure, while the prominent initials of CAA on the right could catch the viewers' eyeballs instantly.

Promotion

Prof. WANG Dan
as Professor

Dr WU Xiaoming
as Associate Professor

Dr YANG Lei
as Associate Professor

Dr LI Ping
as Assistant Professor

New Academic Staff

Prof. ZHANG Weixiong
as Affiliated Chair Professor of Bioinformatics and Integrative Genomics

Dr CHEN Gong
as Research Assistant Professor

polyucomp   polyucomp   polyucomp

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