JUN QING, LIM

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PROFILE

A graduate student of MMATH computer science studies, specializing in software and systems. Recently graduated with a Bachelor of Computer Science from Monash University. Passionate about growth in technology and problem-solving in the field of engineering and computer systems.

TECHNICAL SKILLS AND INTERESTS

Languages	C, C++, Golang, Python, Java, HTML, CSS, JavaScript, Haskell, Bash
Programming	Object-oriented, Functional, Imperative, Shell Programming
Abilities	Algorithms, Data Structures, Computer Systems, Mathematical Proofs, Discrete & Continuous Mathematics
Interests	Algorithms, Programming, Software Engineering, Distributed Systems

EDUCATION

University of Waterloo *Sept 2022 - Present*

- Master of Mathematics (MMath) in Computer Science (Coursework)
- Relevant Areas: Databases, Systems, Software Engineering

Monash University *July 2018 - June 2021*

- Bachelor of Computer Science; GPA: 3.95/4.00, WAM: 87 (High Distinction)
- Relevant Courses: Algorithms, Data Structures, Theory of Computing, Operating Systems, Parallel Computing, Databases, Software Engineering

University of Waterloo *Jan 2020 - Apr 2020*

- Exchange, Mathematics - Computer Science; Average: 91%
- Courses: Hons for Algebra Mathematics, Logic & Computation, Object-Oriented Development

WORK EXPERIENCES

Teaching Assistant - *University of Waterloo, Waterloo* *Sept 2022 - Present*

- Teaching Assistant for CS135: Designing Functional Programs

Software Engineer - *foodpanda, Remote (Singapore)* *Oct 2021 - Aug 2022*

- Working on OneView customer service platform
- Developed APIs for cooking instructions and email communication systems for agent-customer
- Integrated customers, riders and vendors into a single platform
- Technologies: Golang, DynamoDB, SQS, RDS, DataDog, Kubernetes, Terraform

Software Engineer (Part-Time) - *Monash UReview, Malaysia* *Dec 2020 - June 2021*

- Developed API on general surveys and student reports aggregation
- Optimized user reviews page loading times by 85% with caching algorithms
- Maintained back-end source code between December 2020 to June 2021
- Technologies: Python, Django, REST

Software Engineer Intern - *MoneyLion, Malaysia* *Dec 2020 - Feb 2021*

- Worked on back-end banking verification team
- Developed scripts that assist in monthly bank accounts refreshing, saving 100% of manual effort
- Implemented new features for user bank accounts and fixed bugs on staging and production level
- Technologies: Java, Spring Boot, Maven, Kafka, NewRelic, SLF4J

Research Assistant (Part-Time) - *Monash University, Malaysia* *June 2020 - Nov 2020*

- Project: Automatic grading of English essays
- Funded by *SIT Collaborative Research Seed Grant 2020* and supervised by Dr Ian K.T.Tan
- Utilized Support Vector Machine (SVM) model with a scoring system to automatically grade articles
- Developed final project as a online as a service to further collect data for project improvements
- Technologies: Jupyter Notebook, scikit-learn, pandas

RESEARCH PROJECTS

Classification of Retrieved Documents for User Satisfaction *2021*

- Collaborated with two students aiming to research, design and develop a classifier for user satisfaction in an information retrieval system
- Developed a classifier to predict a document's readability level based on user's comprehension level
- Improved the conventional readability formulas prediction performance by leveraging BiGRU Attention Neural Network Architecture

Alert Detection in a Distributed Wireless Sensor Network *2020*

- Collaborated and co-authored with a student to research on wireless sensor networks in the areas of remote environmental monitoring and target tracking
- Designed an alert detection system with sensor devices using inter-process communication (IPC) architecture with a Cartesian grid and Message Passing Interface (MPI) for communication
- Future work include establishing processes synchronization to improve latency

OTHER PROJECTS

Tutor-Student Matching App *github.com/itsjunqing/tutor-student-matching*

- A Java-based app that connects students to tutors with bidding of subjects
- Designed and developed using design patterns (i.e., adapter, observer) to support extensibility
- Leveraged Model-View Controller architecture to separate concerns of models, view and controller for better maintainability

Biquadris Game *github.com/itsjunqing/biquadris-game*

- A C++ based multiplayer tetris-like game
- Optimized performance with smart pointers to reduce memory tracing issues
- Simplified future extensibility with template method pattern

Hearts Game *github.com/itsjunqing/hearts-game*

- A multiplayer hearts (trick-taking) game built with purely functional language Haskell
- Developed probabilistic AI-approach as overall game strategy
- Optimized game performance by manipulating memory states in Haskell

Asteroids Game *github.com/itsjunqing/asteriods-gameplay*

- A TypeScript-based asteroid game built with RxJs Observables
- Utilised RxJs Observables to monitor keyboard events and object states
- Minimised functions side-effects by containing objects in Observable states, achieving clean and reusable states

OTHER EXPERIENCES

Shopee Code League, Singapore *March 2021*

A three-weeks online coding competition hosted by Shopee, Southeast Asia's largest e-commerce platform. Participated in a team of three that focuses on the aspect of improving e-commerce systems with the use of data analytics, data science and algorithms.

Google Developer Group (GDG) Conference, Malaysia *Dec 2019*

A non-profit independent developer and user group that discuss and share experiences on developing applications using Google Developer technologies. Volunteered and mentored approximately 50 juniors in building basic programming skills.

Monash Hackathon, Monash University *Nov 2019*

An education-themed hackathon organized by Monash University Malaysia in collaboration with Mobius Digital to inspire students to utilize technology from public databases to artificial intelligence to innovate on ideas on improving the quality of education.

Google Cloud Study Jam, Monash University *Nov 2019*

A Google Cloud workshop organized by Developer Student Club – Monash University Malaysia. Taught and mentored students on using Google Cloud Platform (GCP) with hands-on experience on GCP Essentials and BigQuery Basics.

HONORS AND AWARDS

- **Monash Straight High Distinction** [2019-2021]
- **Monash Travel Abroad Scholarship** [2020]
- **Top 5% in of Western Australia Certificate of Education** [2017]
- **5th Kangaroo Math Competition Malaysia** [2017] - Distinction
- **Sunway College Special Scholarship** [2017]

PUBLICATIONS

- Jun Qing Lim, Yin Cheng Chang. (2020). Simulation of an Alert Detection in a Distributed Wireless Sensor Network with Message Passing Interface. *Monash University, School of Information Technology*

LANGUAGES

- English (Native/Advanced)
- Chinese (Advanced)
- Malay (Intermediate)