

SI WEI, LIANG

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SUMMARY

An upcoming computer science graduate who has demonstrated problem-solving, project management, and analytical skills through past work and education experiences. Seeking to leverage acquired knowledge in cybersecurity, network and distributed systems, and operating systems to make valuable contributions and further develop expertise in the cybersecurity field in the public sector.

EDUCATION

Imperial College London, United Kingdom (Current)

Oct 2022 – Oct 2023

Master of Science in Computing

- Relevant Courses: Network and Web Security, Computer Networks and Distributed Systems, Operating Systems, Computer Architecture, Object Oriented Design and Programming, Databases, Software Engineering Design (Java), Algorithms, Introduction to C++ Programming
- Relevant Project: Packet Aggregation using Kernel-bypass Framework (Grade: A)
 - Developed a packet aggregator that bypasses kernel space in a client-server network system in c using Data Plane Development Kit (DPDK) libraries, in a 5-person team, to reduce workload of a Memcached server.
 - Designed algorithm to avoid excessive wait time for clients while preventing Memcached server from overloading
 - Implemented Continuous Integration/Continuous Delivery (CI/CD) pipeline and test cases for the aggregator
- Individual Project (In progress): Employing AI/ML Techniques (NLP) for Extraction of Tactics, Techniques and Procedures from Cyber Threat Intelligence (CTI) Reports

Singapore Polytechnic, Singapore

Apr 2021 – Apr 2022

Specialist Diploma in Data Science (Artificial Intelligence)

- CGPA 4.00/4.00
- Relevant Courses: Introduction to Programming for Data Science (Python and SQL), Introduction to Statistics for Data Science, Applied Machine Learning, Artificial Intelligence Human Interface

Nanyang Technological University (NTU), Singapore

Aug 2015 – Jul 2019

Bachelor of Engineering in Aerospace Engineering – Honours (Highest Distinction)

- CGPA: 4.81/5.00, Dean's List AY2018/2019, NTU President Research Scholar 2017
- Relevant Courses: Introduction to Computational Thinking (Satisfactory), Computing (Grade: A+), Mathematics 2 (Grade: A+)
- Final Year Project: Virtual Reality – Computational Fluids Dynamics (Grade: A)
 - Co-designed an interactive VR game to educate users on the interaction between a moving sphere and air
 - Utilised MATLAB to predict sphere flight path and verify displayed results on VR system after VR-CFD coupling
 - Authored research paper, literature review and conducted presentation on research topic. (Grade: A)
- Activities: Vice-Centre Head of Study Hearts Thursday Voluntary Centre

WORK EXPERIENCE

Shopee Pte Ltd (Regional Operations, Customer Service)

Sep 2021 – Sep 2022

Associate (Data Analyst)

- Developed and automated python scripts to build google sheet dashboards accessible across devices to assist business teams in making data-driven solutions, eliminated daily manual data collection effort required, reduced office overhead by 10%
- Translated business propositions into quantitative queries to collect and clean necessary data using Python and SQL scripts
- Conducted root-cause analysis of at-risk operational Key Performance Indexes (KPIs) across all regions
- Collaborated with teams across all regions to resolve KPI failures and identify gaps to pioneer new ways to optimise processes and improve data integrity

SMRT Corporation Ltd

Jul 2019 – Sep 2021

Senior Engineer (Jul 2021 – Sep 2021), Executive Engineer (Sep 2019 – June 2021), Engineering and Management Associate

- Liaised with multiple teams from multiple departments, different contractors and authorities to investigate and troubleshoot the root cause of various faults belonging to Rolling Stock and Train-borne Signalling and Communication Systems
- Assisted to manage corrective maintenance tasks, through ensuring all reported faults and delays were handled by maintenance team in a timely manner and accurately reported to multiple stakeholders.
- Performed Fault trending for multiple rolling stock subsystems

ACTIVITIES / COMPETITION

Engineering Innovation & Design Competition (Position Held: Leader) – 1st Prize

Aug 2018 – May 2019

- Led 8-members team to create a product that improves safety and ergonomics when users hang clothes with bamboo poles in apartments and authored business plan and marketing scheme for the product
- Innovated an entirely 3D-printable product using existing resin from users' inventory, achieved complete cost avoidance through \$0 manufacturing cost.
- Awarded 1st place out of 17 teams in the category

SKILLS

Software and IT skills

- C++ (Intermediate), Python (Intermediate), SQL (Proficient), Java (Basic-Intermediate), JavaScript (Basic), PHP (Basic), MATLAB (Basic), Data Analytics,

Languages

- English (written and spoken), Mandarin (written and spoken), Conversational Malay (spoken)