

Skills

- **Fields of Interest:**
 - o Software Engineering
 - o Back-end Development
 - o Data Engineering & Analysis
 - o DevOps
- **Programming Languages & Technologies:**
 - o Python, JavaScript (Node.js), Java
 - o SQL (Postgres) & MongoDB
 - o Docker, Kubernetes, Istio
 - o AWS: S3, EC2, EKS, RDS, RedShift

Employment

- **Software Engineer Intern** // KM.ON by KARL MAYER (June 2020 – August 2020)
 - o Worked in a team developing infrastructure for an industrial IoT platform following Agile development practices.
 - o Developed microservices to consume and process real-time stream data using Apache Kafka.
 - o Developed data pipelining processes for warehousing IoT log data into a data-lake for cold storage.
 - o Built a webapp for simulating and visualizing IoT machine data from a mock factory environment.
 - o Set up DevOps & CI/CD solution for a multi-tenant Kubernetes cluster allowing developers to work on the same infrastructure project without conflicting deployments and/or integration tests.
- **Data Analytics & Engineering Intern** // Dory Technology (December 2019 – May 2020)
 - o Worked in backend development and data engineering team for an online item exchange platform.
 - o Developed scripts to clean and prepare user app usage data for analysis. Further implemented statistical methods to gain understanding of trends in user behavior.
 - o Set up analytical database and developed ETL pipeline for transferring NoSQL OLTP database contents to a relational Amazon RedShift OLAP data warehouse for complex querying and insight generation.
 - o Implemented automated data reporting and set up visualization tools for business intelligence.
- **Programming & Hardware Instructor** // BSD Education (April 2018 – June 2020)
 - o Prototyped programming & hardware projects to be used in primary and secondary school curriculum.
 - o Developed and taught programming and hardware/electronics curriculum with the use of Arduino and Raspberry Pi platforms.
- **Digital Strategy** // SpotlightHK (April 2018 – December 2018)
 - o Core team member in organizing and running a local fashion show: "SpotlightHK".
 - o Conducted market research and social media analytics to guide business strategy development.

Education

- **BEng in Mechanical Engineering** // The Hong Kong Polytechnic University (2017 – 2021)
 - o **Specialization:** Autonomous Systems and Control
 - o **Clubs & Activities:** PolyU "Attache" Student Ambassador Scheme, Indonesian Student Association Committee, Engineering Club Member

Projects

- **Hong Kong Techathon 2020 (Champion Team)** // Big Data & FinTech Hackathon (January 2020)
 - o Champion team member for the big data & fintech category of the Hong Kong Techathon 2020
 - o Developed a prototype platform that uses machine learning (NLP) to correlate market trends with news data to generate product risk metrics for advising trading financial instruments.
- **SAUVC Autonomous Underwater Robot Competition** // Competition (September 2019 - December 2019)
 - o Participated in an international engineering design competition developing an autonomous underwater robot.
 - o Developed autonomous control systems and electronics. Specifically assigned to object detection through analysis of camera input using a variety of image processing techniques on a Raspberry Pi.
- **DONUT WASTE Student Technology Advisor** // IoT Environmental Startup (July 2018 – August 2019)
 - o Programming and electronics advisor for a hardware startup aiming to reduce food wastage.
 - o Designed an IoT weight scale to be stationed in school cafeteria food bins to monitor food wastage.
 - o Supervised development of a webapp to visualize metrics collected by the IoT weight scale.