

Ali Adnan Imran

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Hong Kong/Indonesia

Skills

- **Fields of Interest:**
 - o Computational Science
 - o Software Development
 - o Data Engineering & Analysis
 - o Robotics
- **Programming Languages & Technologies:**
 - o Python, JavaScript (Node.js, React), Java
 - o SQL (Postgres) & MongoDB
 - o Docker, Kubernetes, Istio
 - o AWS: S3, EC2, EKS, RDS, RedShift
 - o ROS, Linux, Bash

Employment

- **Software Engineer Intern // KM.ON by KARL MAYER (June 2020 – January 2021)**
 - o Developed 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.
- **Research Assistant // PolyU Robotics & Machine Intelligence Laboratory (September 2020 – January 2021)**
 - o Worked on a semi-autonomous welding project as an undergraduate research assistant.
 - o Developed and implemented algorithms for calculating welding trajectories from 3D depth camera point cloud data.
 - o Developed algorithms for hand-gesture based robotic arm position/orientation control and tracking.
 - o Contributed to writing a research paper about the above semi-autonomous welding project to be submitted to "IEEE Transactions on Mechatronics" in March 2021.
- **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.

Education

- **BEng in Mechanical Engineering // The Hong Kong Polytechnic University (2017 – Expected May 2021)**
 - o **Bachelor's Thesis:** A SLAM-capable (Simultaneous Mapping and Localization) robot for search and rescue applications.
 - o **Specialization:** Autonomous Systems and Control
 - o **Clubs & Activities:** PolyU "Attache" Student Ambassador Scheme, Indonesian Student Association

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.