







# ZAINUL ARIFFIN

Data Engineer

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## WORK EXPERIENCES

- 10/2022 – Present  
Full-time
- Data Engineer** **Government Technology Agency**
- Engineered a suite of platforms (Trust/EnTrust/EnTrust lite) on GCC 2.0 to facilitate secure and private data access for researchers, resulting in streamlined research processes and secure data consumption.
  - Developed the frontend of EnTrust lite Ops Portal v2 platform with NextJS, implemented Role Based Access Control(RBAC), containerized with Docker, and successfully deployed to ECS, ensuring enhanced access control and scalability.
  - Led the full-scope development of backend and frontend infrastructure for Entrust lite, provisioned via Terraform, and crafted serverless functions in Python for seamless frontend interfacing, resulting in enhanced system efficiency and user experience.
  - Developed a React Electron application for offline handling of large civilian datasets, successfully implementing data transformations to anonymize sensitive information, thereby ensuring both user-friendliness and data security.
- Terraform / Typescript / NextJS / Python / AWS / Linux
- 9/2021 – 4/2022  
Internship
- Data Scientist** **Infocomm Media Development Authority**
- Engineered an end-to-end AutoML pipeline for raw image processing that included ground truth extraction, preprocessing, and Open Source OCR model training, achieving a final model performance score of 0.8, competitive with AWS Textract.
  - Automated the entire pipeline process to enhance efficiency and model performance, ultimately approaching the benchmark set by AWS Textract.
- Python / AWS / Flask / Linux
- 5/2020 – 8/2020  
Internship
- Data Scientist** **Infocomm Media Development Authority**
- Conducted research on COVID-19 control measures and developed a regression model, effectively predicting the impact of various interventions, aiding in more informed decision-making.
  - Contributed to the testing phase of an internal search engine designed to enable researchers to easily access credible information from research publications and news channels, enhancing research efficiency.
- Python / Linux
- 2/2017 – 5/2017  
Full-time
- Fullstack Developer** **ArcLab**
- Engineered an EdTech platform focused on delivering micro- modules for workforce education, coupled with certification, thereby expanding the avenues for professional development.
  - Designed a fully digital listening comprehension experience for a client, incorporating real-time performance tracking of students, enhancing the learning and assessment process.
- Python / Flask / ReactJS / MongoDB
- 11/2016 – 2/2017  
Internship
- Software Developer** **Intrasys**
- Developed specialized Windows applications for handheld RFID devices, enabling clients to efficiently manage warehouse stock-taking processes, thereby improving inventory accuracy and operational efficiency.
- .NET / RFID / MSSQL

## EDUCATION

- 2019 – 2022 **Bachelor in Computing Science** Singapore Institute of Technology - University of Glasgow
- 2013 – 2017 **Diploma in Information Technology** Singapore Polytechnic

## EXTRACURRICULAR ACTIVITIES

- 2021 – 2022 **President** **SIT Geeks**  
Spearheaded bi-monthly meetups, field trips, and hackathons aimed at student enrichment. Collaborated closely with Student Life staff to plan events and secure necessary funding, thereby enhancing student engagement and learning.
- 2020 – 2021 **Lead** **Google Developer Student Club**  
Organized regular meetups and workshops focused on educating students about emerging technologies from Google and other leading tech companies, thereby promoting technological literacy and skill development.

## HACKATHON AWARDS

- 2023 **3rd Place** **DSAID Hackathon by GovTech**  
Won 3rd place in a competitive company-wide hackathon focused on LLM, organized by GovTech.
- 2022 **2nd Place** **Glasgow University Tech Society Hackathon**  
Won 2nd place in a university-level hackathon, focused on ensuring integrity of online publication.
- 2021 **3rd Place** **Glasgow University Tech Society Hackathon**  
Won 3rd place in a competitive university-level hackathon, focusing on remote collaboration.
- 2020 **1st Place** **Glasgow University Tech Society Hackathon**  
Won 1st place in a university-level hackathon, focusing on flights risk management.

## CERTIFICATIONS

- 2022 **Certified ScrumMaster** **Scrum Alliance**  
Earned the Certified ScrumMaster credential, demonstrating expertise in agile project management.
- 2021 **Docker Fundamentals** **VMware**  
Completed a Docker fundamentals course, gaining essential knowledge for containerization technologies.
- 2015 **Proxor 2** **Proxor Java SDE**  
Earned a Proxor-2 rating in Java Software Development, demonstrating high-level proficiency in Java programming.

## PERSONAL PROJECTS

**DISC Profiler** | <https://classifai.me>

- Developed an interactive 28-question quiz aimed at enabling individuals to understand their DISC personality types across private, public, and perceived domains.
- Provided comprehensive breakdowns for each DISC type to enrich user understanding and guide personal or professional development.

**Grade Calculator** | <https://plsgrade.me>

- Engineered a versatile GPA calculator capable of accommodating various school grading systems, thus offering a universal tool for academic assessment.
- Currently assisting over 7,000 students monthly by computing their current GPAs and projecting the scores needed in future terms to achieve specific academic goals.

## TECHNICAL SKILLS

**Languages:** Python, Javascript, Java, C#  
**Databases:** DynamoDB, PostgreSQL, MongoDB  
**Cloud:** AWS, GCP, Azure  
**Web:** HTML5, CSS3, Tailwind  
**Frameworks:** NextJS, React, Express, Flask

## SOFT SKILLS

**Problem Solving:** Exceptional analytical skills  
**Creative:** Innovative thinking  
**Leadership:** Proven ability in leading teams  
**Grit:** Tenacity in achieving goals

## LANGUAGES

**English:** native  
**Tamil:** proficient