

Tam Zher Min (Zac)

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Education

National University of Singapore

Aug 2019 – May 2023

Bachelor of Engineering in Electrical Engineering; Minor in Data Engineering

GPA: 4.49/5.00

- Dean's List (Top 5% of Cohort)

AY21/22 SEM 2

Experience

SSMC, Systems on Silicon Manufacturing Company – Machine Learning Engineer

Aug 2021 – Jan 2022

Semiconductor manufacturing joint venture between TSMC and NXP looking to optimize their wafer QA system and data servers

- Leveraged on pretrained Convolutional Neural Networks to classify wafer defect scans with 95% out-of-sample accuracy
- Explored online MLOps options for model deployment with an MVP Streamlit [webapp](#) before settling with offline solution
- Architected a local “[Automatic Wafer Defect Classification System](#)” wrapping .h5 models in a portable Windows software
- Incentivized digitalization and enabled upwards of >90% storage reductions, translating to tens of thousands in cost savings

ripplecreate – Software Engineer

Feb 2022 – Apr 2022

Kids STEM tutoring company looking to extend microloan financing to selected students with the help of attention indexing

- Developed a non-DL OpenCV model using Haar Cascades to aggregate attention metrics on 5-10 student online classes
- Uploaded real-time model data to a Firebase backend served through a React frontend with live dashboards for monitoring

Buhler – Data Scientist & Engineer

Jan 2022 – Mar 2022

Plant machinery manufacturing Swiss MNC looking to explore insights in the generated data from customers in flour milling

- Massaged and analyzed Big Data, optimizing production for one of the largest SEA flour millers before charting with Plotly
- Productionized the existing codebase of data-pipelining algorithms for more scalable monthly reports and visualizations

Tivlon Technologies – Data Scientist & Engineer

May 2019 – Dec 2019

Commodity trading consultancy looking to consolidate pricing data for analysis and visualization to offer customer value-add

- Fed large amounts of raw Excel data containing commodities' daily historical prices and inventory through an ETL pipeline
- Employed industry-standard BI tools such as Power BI and Tableau to [dashboard](#) the connected and formatted data sources

Projects

NUS FinTech Society's Website | React/Next.js, TypeScript, Tailwind CSS

In Progress

- Designed the frontend for my club's society website to showcase club projects and aid in recruitment and news dissemination

LaidLE – Database Technology & Management (Grade: A) | Django, Bootstrap, PostgreSQL, Heroku

[App](#) | [GitHub](#)

- Deployed a meal crowdsourcing CRUD webapp with a non-ORM raw SQL backend and session-based authentication
- Featured 4 user-groups with a custom admin panel alongside generated QR codes for unique coupon and reward allocation

HDB Resale Price Predictor – Learning from Data (Grade: A) | Streamlit, TensorFlow, Sklearn

[App](#) | [GitHub](#)

- Wrote a Streamlit webapp with traditional ML and ANNs trained using 5-year historical HDB prices from Data.gov.sg

COPEMON – MCU Programming & Interfacing (Grade: A) | Microcontroller, C, Assembly, Tkinter

[GitHub](#)

- Developed a MedTech IoT Windows software with live charting using sensor data drawn from the STM32 Cortex-M4 MCU
- Offered automatic SMS alerts to next of kins facilitated by the Twilio API whenever the patient falls into critical conditions

Hackathons

DSTA – BrainHack (Machine Learning and Software Development)

Jun 2021

- **TIL:** Ranked 18/100 teams with PyTorch to perform object detection and sound classification on 5 to 10 different animals
- **SeeTrue:** Placed 7/50 individuals using InceptionV3 from TensorFlow and Keras to identify deepfake news in videos
- **CODE_EXP:** Built TooHak!, a quiz-maker React Native app to ease remote learning and teaching for the “new normal”

NUS Hackers – Hack & Roll (Freestyle Software Development)

Jan 2021

- Collaboratively coded up QuizLah!, a JavaScript Alexa “skill” for a VUI Local-Multiplayer Singapore Trivia Game

Skills

Programming Languages: Python, JavaScript, TypeScript, SQL, C, Assembly, Verilog

Software Development: Django, Streamlit, React, HTML/CSS, Bootstrap, Tkinter, PostgreSQL, Figma, Linux, Git

Machine Learning / Data Science: TensorFlow, Keras, Scikit-Learn, OpenCV, NumPy, Pandas, Matplotlib, Power BI