**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 EngineeringGPA: 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](https://share.streamlit.io/zhermin/adcs-web) before settling with offline solution
* Architected a local “[Automatic Wafer Defect Classification System](https://github.com/zhermin/ADCS)” 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](https://bit.ly/tivlon) 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**](https://laidle.herokuapp.com/) **|** [**GitHub**](https://github.com/zhermin/LaidLE)

* 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**](https://share.streamlit.io/zhermin/hdb-resale-predictor/) **|** [**GitHub**](https://github.com/zhermin/HDB-Resale-Predictor)

* 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**](https://github.com/zhermin/COPEMON)

* 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