# **Eddie Zhang**

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## Summary

I am a results-oriented and innovative IT student at UNSW with a solid foundation in programming and computer science. My academic and project experiences have equipped me with both theoretical knowledge and practical skills across various domains. I am:

- Proficient in Python and Shell Scripting, with ample experience in other programming languages too.
- Skilled in working within Linux environment, REST APIs, database systems, and mainstream version control tools like Git.
- Experienced in developing machine learning solutions, building web applications and services, system design, and understanding computer architecture.

I thrive on solving complex problems and continuously expanding my expertise to deliver impactful results.

#### **Skills**

Languages: Python, JavaScript, Shell, Java, C++

Web Tech: React, Restful API, HTML5, CSS3, Swagger, Flask

DB: **PostgreSQL**, NoSQL, SQLite
Tools: **Git**, SVN, AMPL, **PowerCurve** 

Hardware: HDL, Assembly code, VM code

# **Work Experience**

#### NAB - Summer intern

11.2024 - 02.2025

I work under personal Banking stream, in unsecured risk team, and I:

- Conduct documentation and evaluation regarding policy management.
- Ensure seamless alignment between front-end and back-end logic, maintaining consistency and eliminating gaps to deliver cohesive and efficient systems.
- Document project workflows and support system maintenance tasks.

### **Medtronic - Sales Representatives**

05.2021 - 07.2022

Facilitate the sales of Medtronic surgical stapler at local hospitals including documenting clinical/financial report, record clinical trial data, event hosting and providing customer services.

#### Education

06.2022 - 06.2023	University of Adelaide
	Degree: Graduate Certificate of Computer Science
09.2023 - 11.2025	University of New South Wales
	Degree: Master of Information Technology

## **Projects Experience**

- # Data analytic and database design in PostgreSQL, NoSQL, SQLite DB.
- # Simulation Program to evaluate and optimize the performance of system designs.
- # Machine learning algorithms implementation and optimization in benchmark datasets from different industries. Toolkits include: **scikit-learn**, **tensorflow**, **keras tuner**.
- # Fundamental and advance Chips building in **Hardware Descriptive Language** and base operation design in assembly code and VM code.

## **Projects**

## Realtime transportation info & Tour guide:

- Design and implement web server supporting HTTP GET requests, persistent connection and static file serving.
- Implementation using **Flask** library, **Swagger** UI and embedded external API for retrieving real-time transportation information.
- Maintain local **SQLite** database to keep track of user's saved stops.
- Embedding Gemini API (Google AI tool) to provide extra touring tips for users.

#### Discrete Simulation:

- Provide simulation of server's operation under different designs in Python.
- Could be used to test and design settings like call center, queuing, hardware ultiliastion, any setting involves server(s) handling incoming task or event.
- Using **matplotlib** to plot graph to present system performance and to validate results or patterns, increase system efficiency, lower cost, and increase service rate.
- Using AMPL tool to calculate system design variables for desire performance.

#### **UNSW Assignment submit/grade system Simulation:**

- Written in POSIX-compatible Shell, this project aims to duplicate the assignment submit/grade system at UNSW. Provides operational specification by exact reference implementation towards UNSW system behavior.
- Run with dash, in /bin/dash. Provide functions to both student end and staff end, including submit, status, fetch and auto test for student use, adding, removal, summary and mark for staff use.

More details of projects at GitHub link: <a href="https://github.com/Quaniseddy">https://github.com/Quaniseddy</a>