Teng Ao
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Professional Summary

Professional and experienced software developer proficient in Python, C, and Java. Enthusiastic about information transformation, digital revolution, GenAI integration, and Android application development. Possesses strong communication skills and leadership abilities, with a proven track record of solving complex problems in challenging scenarios.

Technical Skills

Languages : Python, Java, C, JavaScript, CSS, SQL(MySQL, PostgreSQL), R, HTML5, PHP, Linux (Configuring and Managing)
Frameworks : ASP.NET (.NET Core, VB.NET), React Native, Node.js, Node/Express-API, Bootstrap, Google Earth Engine
DevOps and API Tools : Git, Docker, Kubernetes, TFS, Octopus Deploy, Postman, GenAI(Large Language Model, Open-AI API, Lang-Chain, Prompt Engineering, RAG), Snowflake, File-Systems, GitHub, Analog Electronics, Wire-shark
Cloud and Security Tools : AWS, Azure Cloud, SQL Server, Shell, Hardware Encryption, Advanced Excel
Others : Data Modeling, Agile (Scrum/Kanban), Design Patterns, Debugging, Root Cause Analysis, Tableau, Bash, Apache Spark
Relative Courses : Algorithm, Data Structure, Software Engineering, System Design, Computer Systems, Computer Networking, Operating Systems, System Engineering, Advanced Machine Learning, Data Mining and Analytic, Database Systems

Education

University of Washington — **MS in Information System** | GPA : 3.6 — *June 2023 – June 2024*
Northern Arizona University — **BS in Computer Science & Informatics Engineering** | GPA : 3.6 — *August 2019 – May 2022*

Experience

RA of MLE for Prof.Ming Fan, Prof. Leonard Bouixxe | *Michael G. Foster Business School* | Python — *Feb 2024 - June*
- Zeni - Virtual Pet Optimization: Developed backend **API** interface, utilized ChatGPT API to support the APP's chat response functionality. Implemented the **words-to-voice** functionality by utilizing Tik-Tok Volcano API.
- Management Optimization: Developed a **decision-making agent** for "The Beer Game" by using the advanced framework and LLMs(Llama-Index, Lang-Chain, GPT-4, Claude 3). Implemented RAG, Prompt Engineering, CoT to optimize the **bullwhip** effect, outperforming **96%** of University of Washington MBA students.
- Operation Optimization: Created **Multi-Agent System** using the Auto-Gen Framework to simulate the supply chain and optimized the decision model which improved operational efficiency by **61%**.

Software Development Engineer | *Chint* | *C, Python, .Net, SAP, ERM, D365* — *June 2022 – March 2023*
- Designed and developed custom IT System Software in **Python** and **C** that optimized processes for 30 different manufacturing warehouses involving multiple sub-systems resulting in a **35**% efficiency boost, **30%** of sales redundancy deduction, ranked **Top 1** problem-solving efficiency in entire Chint IT department.
- Developed and implemented strategies to address **4** security vulnerabilities, achieving **0** discrepancies. Monitored platform from digital migration to deployment, weekly presenting findings with data visualizations in Tableau to HR Manager and Vice President.

Software Architect & Developer | *Megabiota Lab, Northern Arizona University* — *July 2021 – May 2022*
- Designed and developed a fully functional **Native Android** application "Biosphere" including multiple functionalities: dynamic map types, language switching, offline map viewing, regional map downloading, data filtering, and live GPS location to support diverse use cases. Utilized **JavaScript** and **Google Earth Engine** to process large-scale GEDI data for online/offline visualization. (Java/JavaScript/CSS, Google Map Framework, Node.js/Express-API, GDAL).
- Implemented the APP architecture, filtering algorithms, server controllers, and **HTTPs request/API** interface. Implemented core algorithms and backend functions using **Java**, **JavaScript**, and **Python**. Conducted unit, integration, and user tests with hundreds of use cases. Published the Bio-Sphere app on Google Store and has **2k+** downloads.
- Exercised strong leadership in managing a cross-functional team of **4**, resolving conflicts, and fostering cohesiveness to ensure the timely completion of all deliverables. Ranked as the **best** cross-functional team in NAU 2022.

Projects

AI Web Application – Seahawks Prediction Agent | *Python, AWS, CSS, Kubernetes, Stream-lit, Langchain, RAG* — *Nov 2023*
- Utilized, Python, CSS, Streamlit, Langchain, and RAG to create an **AI-driven** web application for efficient data processing and scalability. Achieved **93%** accuracyin web scraping content from **600+** articles using **Python** and **Beautiful-Soup**. Enhanced the data pipeline by integrating **Elasticsearch** with AWS.

Operating System Simulator | *C, Linux Command, Bash* — *Spring 2022*
- Developed an operating system simulator in **C**, implementing **algorithms** including SJF, preemptive and non-preemptive FCFS, RR, and SRTF, along with robust concurrency techniques to handle multiple processes and threads, preventing race conditions. Created a real-time processing log **dashboard** for visualizing the simulator.

Game Development | *Python, Unity, Game-maker Studio* — *Fall 2021*
- Designed and created the game logic, animations, and codes for three fully functional games, including a violin-playing simulator, a cave escape game, and a fully operational mobile app called Auto Player for the game Clash of Clans.

Awards and Certifications

3rd Place of UW 2024 Datathon | *University of Washington* — *May 2024*
Gold Prize of IT Skills Competition | *Chint* — *August 2022*
Top 5% Student and Dean's List | *Northern Arizona University* — *August 2019 - May 2022*
AWS Certificates | *Amazon Web Service* — *May 2024*