Flynn(Yinmingren) Fu

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EDUCATION

Santa Clara University   **Santa Jose, United States**
College of Engineering, MS, Computer Science and Engineering   Sep. 2024 – Expect Jun. 2026
- Coursework: Computer Architectures, Design and Analysis of Algorithms, Advanced Operating Systems, Computer Graphics, Data Structures, Distributed Systems, Machine Learning, Logic Design
- **Internship available start and end dates: Jun 13. 2025 – Sep 23. 2025**

South China University of Technology   **Guangzhou, China**
College of Mathematics, BS, Information and Computing Science   Sep. 2020 – Jun. 2024
- GPA: 3.43/4.0   Rank: 19/63
- Coursework: Computer Network, Information Theory, Analytical Geometry, Linear Algebra

PROFESSIONAL EXPERIENCE

ZWSOFT   **Guangzhou, China**
C++ Development Engineer   Jul. 2023 – Oct. 2023
- Interned at a **leading CAE R&D department** in China, responsible for optimizing the **CAE mesh module algorithm**, **memory management** and developing industry software plug-ins
- Developing the **ZWMemoryPool** library by using **Boost** and **Design Patterns**, reducing memory usage by over **15%** and speeding up **model node import** and **rendering** by over **50%**, while optimizing the underlying memory management logic
- Upgraded the **ZwCAE file export module** by optimizing the **model node export algorithm** and **file support**, increasing the number of export formats and enhancing export speed

JD.COM   **Guangzhou, China**
Business Technical Support Intern   Jun. 2023 – Jul. 2023
- Utilizing data preprocessing libraries (**Pandas, Scikit-Learn, Seaborn**) to process **real corporate transaction data** and generate relevant metrics, supporting team collaboration and facilitating negotiations with enterprises
- Implementing algorithm to identify **abnormal orders** based on **real trading data** and **Statistical Learning model** to calculate overdue probabilities, predict order handling times, and estimate payment cycles

PROJECT EXPERIENCE

A High-Concurrency C++ Server Based on Muduo Library   Jun. 2024 – Sep. 2024
Framework: C++, Linux
- Implementing a high concurrency server using **non-blocking**, **I/O multiplexing**, and the **Reactor model**, referencing the **Muduo** source code
- Developing with a multithreading model, implementing classes like **EventLoop**, **Poller**, and **Channel** to enable loop listening, request dispatching, and event handling
- Gaining proficiency in basic **Linux network programming** and the fundamentals of **I/O multiplexing**

MathR: An Educational AI-Based App for Math Image Recognition and Reasoning   Dec. 2023 – May. 2024
Framework: C++, Python, Java, JavaScript, SQL, Linux(Ubuntu), Android Studio
- Enhancing the model's recognition and reasoning ability in images and mathematical formulas through the integration of **LLMs (GPT, ERNIE, Sparkle, Llama)** with the **OCR technology (Deep Learning Model)**
- Developing an Android app, enabling fast and stable **client-server communication** and **image recognition** using **Android Studio** and **SQLite**, while also deploying trained language models and backend on a **Linux platform**
- Providing robust **APP Solutions** and **APIs** for educational institutions and colleges using Flask and Socket

Prediction of Glass Properties Based on Statistical Learning   Mar. 2023 – Jun. 2023
Framework: C++, Python, Scikit-Learn
- Extracting and analyzing nonlinear relationships in an open-source glass properties dataset through **data preprocess** (PCA, Normalization) and **statistical learning model** (SVM, RF, Neural Networks, Polynomial Regression)
- Achieving over **95% prediction accuracy** in modeling and predicting theoretical glass properties (such as density and transition temperature) using **SVM**, and **Random Forests**

TECHNICAL SKILLS

- Programming Language: C/C++/C# (Advanced), Python (Advanced), Go (Advanced), Java, JavaScript, HTML, SQL, MATLAB, R, Shell, XML
- Platforms & Framework: C++ Server/Client development, Backend Development, Linux, Git, Docker, Database (MySQL, SqlServer, Redis, MongoDB), Android Development (Android Studio), .Net Framework Development/WPF, Deep Learning (Pytorch, TensorFlow, Scikit-Learn), MATLAB Simulation