JIATAI HAN

SOFTWARE ENGINEER

CONTACT

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EDUCATION

Master in Computer Engineering
Texas A&M University
GPA 3.70/4.00   2018 - 2019

Bachelor in Electrical Engineering
Arizona State University
GPA 4.00/4.00   2013 - 2016

TECHNICAL SKILLS

Programming Languages
Python, JavaScript, TypeScript,
C#, C++, Java, SQL

Front-End Development:
React, HTML, CSS, WebSockets,
Responsive Design

Back-End Development:
Node.js, RESTful APIs,
PostgreSQL, NoSQL

DevOps & Cloud:
AWS Cloud (EC2, RDS, S3),
Docker, CI/CD, Git

Methodologies:
Agile, Scrum, Sprint, TDD, BDD,
System Design.

Tools:
Jira, ClickUp, SVN, Adobe
Creative Suite

Operating System:
Linux, macOS, Windows.

SUMMARY

Results-driven **Software Engineer** with 4+ years of experience in **full-stack development**, **cloud computing**, and **real-time data systems**. Proficient in **Python, JavaScript, React, AWS, and PostgreSQL**, with a proven track record of delivering **scalable solutions** and **optimizing system performance**. Passionate about leveraging technical expertise to build innovative, user-centric applications.

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEER
Oct 2022 - Jan 2025 | Apkudo | Remote

- Designed and implemented **RESTful APIs** and features using **React, JavaScript, PostgreSQL**, and **S3** on **AWS**, enhancing platform functionality and user experience.
- Optimized a legacy **SQL query**, reducing execution time from **3s to 0.67s** (a **78% improvement**) and adding customer-requested features, while improving **CPU and memory usage** on AWS PostgreSQL DB.
- Improved **system availability** from **96% to 99.9%** by automating maintenance with **Cron jobs, Ansible**, and **test scripts**, reducing down stations from **5/50 to 1/50**.
- Built real-time data visualization interfaces using **WebSockets** for live UPH metrics and enhanced the hardware-to-front-end pipeline using Python with custom timeout handling.
- Provided **on-call support** for **S1 incidents**, resolving critical issues, and monitored system performance using **AWS CloudWatch metrics** and cloud logs.
- Transitioned to a **Python-based modular architecture**, enabling custom database schemas via a **user-friendly UI**, and leveraged **AWS services** (e.g., EC2, RDS, S3) for a scalable, secure platform.

SOFTWARE ENGINEER
Feb 2020 - Oct 2022 | Megger | Dallas, TX

- As the **main developer/maintainer** of next-gen power multimeter, delivered a **modern UI, customizable data analysis**, and improved data exchange, replacing outdated systems.
- Developed **C++ simulations** of hardware prototypes and cross-platform applications using **C#** and **Xamarin**, reducing development time by **50%** and enabling seamless operation on both laptops and onboard SoCs.
- Implemented **real-time DSP firmware** using **C**, ensuring low production costs with fast, reliable, and **cost-effective solutions**.
- Created **Python scripts** and **WPF applications** to automate testing and calibration, saving **10+ hours per week** in manual effort.
- Built a **graphical editor** for visualizing and editing relay parameters, enhancing user productivity by **50%**.
- Delivered regular **firmware and app updates**, resolving **100+ customer-reported bugs** and improving product reliability.

.NET FULL STACK DEVELOPER
Aug 2019 - Dec 2019 | Texas A&M AgriLife | College Station, TX

- Developed and maintained a **full-stack web application** using **C#** for backend logic and **JavaScript**, **HTML**, and **CSS** for the frontend, enhancing data accessibility and user experience.