Qianxing Li

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Education

Stony Brook University Anticipated Graduation: May 2025
Bachelor of Science in Computer Science GPA: 3.3
TA for CSE101 (Computer Science Principles)

Skills

Programming: Python, Swift/Swift UI, Java, C/C++, HTML/CSS, JavaScript, Bash, MIPS, OCaml, R
Tools: Docker, REST APIs, Nginx, React.js, Gdb, Criterion, Git, VSCode, Vim, WordPress, Fusion 360**,** FFmpeg
OS: Linux, macOS, Windows, iOS, Android
Language: English, Chinese(Mandarin/Cantonese)
Interest: Robotics, 3D Printing, Self-Hosted Servers, Hacking/Rooting, Hardware Debugging

Experience

WolfeBay July 2023 - Present
Individual Developer

- Designed a full-stack **trading platform** in Python for students to seamlessly publish and browse used items, driving 80 successful sales in two months.
- Build a self-hosted server leveraging **Docker** and **KVM** virtualization for development.
- Exposed core services securely using **Nginx** reverse proxy, and Cloudflare CDN to host web properties over **HTTPS**.

Climate Guardian July 2021 - Present
Individual Developer

- Designed an **IoT**-based HVAC climate control system utilizing advanced human motion tracking for accurate, automated room-level temperature regulation.
- Engineered full-stack IoT architecture leveraging **ESP32**, mmWave sensor and BLE to achieve precise real-time user positioning and enable dynamic, individualized zonal control.
- Created interfaces to integrate with Honeywell thermostats via **REST APIs**. Connected system to Home Assistant and Apple HomeKit using Python, reducing response time to under 26 ms.
- Build a web app in **React.js** allowing users to visualize personalized climate control insights via interactive floorplan heatmaps and define customized routines.
- Developed proprietary algorithms enabling the system to adjust temperatures based on user location in real-time, reducing HVAC energy consumption by 25% while maintaining temperature accuracy within 0.6 °F.

VESIBAY Robotics (VEX Robotics Competition Team) September 2013 - June 2019
Engineer, Team Leader, Mentor

- Led a team of 8 members in designing, building, and programming robots for VEX international competitions.
- Developed a custom **robot control software** and automation using **C/C++**, implemented a precise navigation system with Grayscale and Optical sensor, achieving a 96% success rate in automatic robot operations.
- Engineered a lightweight pneumatic **gear switching system**, enabling our robotic arm to temporarily utilize the full power of the drivetrain, delivering a significant 25% increase in speed and 300% boost in power.
- Designed and built a pneumatic catapult launching system, resulting in 8 times faster delivery. This mechanism captivated global teams and set a new standard in the competition.
- Achieved a 200% lead over the second-place competitor in the Skill Challenge, maintaining a consistent **1st position** ranking in **world-class** competitions for **6 consecutive years**.