Wenyi Qian

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EDUCATION

Carnegie Mellon University | *GPA: 3.84/4.00* | *Awarded $10,000 scholarship* — Mountain View, CA & Pittsburgh, PA
Master of Science in Computer Systems Networking — August 2023 - December 2024

- Coursework: Computer Networks, Deep Learning, Natural Language Processing, Prompt Engineering, AI Applications in InfoSec, Information Security, Browser Security, Cyber Risk Modeling, Applied Information Assurance

Bucknell University | *GPA: 3.80/4.00* | *Dean's List (all semesters)* — Lewisburg, PA
Bachelor of Arts in Computer Science & Linguistics — August 2018 - May 2022

- Coursework: Data Structures, Software Engineering & Design, Algorithms, Operating Systems, Image Processing
- Mid-Atlantic Regional ACM Programming Contest (*Honorable*)

WORK EXPERIENCE

Microsoft
Software Engineer, Linux System Group — May 2021 - August 2021

- Optimized Linux Integration Services Automation (LISA) by employing **Python**-based text-processing libraries. Collaborated across teams to ensure seamless feature integration and system performance improvements
- Designed and implemented a role-based documentation system using **Sphinx**. Reduced onboarding time by 3x (10s → 3s) and increased user satisfaction by 60% through post-launch surveys
- Automated documentation site updates by integrating **Sphinx** and **Read the Docs** with Dockerized CI/CD pipelines built on **GitHub Actions**, leveraging Abstract Syntax Trees (AST). Integrated **PyTest** into CI pipelines for documentation validation
- Deployed and monitored **CI/CD** pipelines with **Kubernetes** and **Prometheus**, leveraging **Terraform** for infrastructure as code. Eliminated manual errors, achieving 100% accuracy and enhancing process efficiency

JiangSu ZhongMingHuiYe Technology LTD
Software Engineer, IoT Solution Team — September 2022 - March 2023

- Spearheaded development of "Smart Community Management Platform", replacing legacy HTTP communication with the **MQTT** protocol for IoT sensor integration, improving system efficiency and responsiveness
- Integrated **RabbitMQ** with MQTT to enable reliable and scalable message queuing
- Architected and initiated a foundational data system with 4 key identifiers using **Redis** for real-time processing
- Implemented real-time object detection and activity recognition using **YOLO** and **TFLite** models

Lakecloud
Software Engineer, Web Development Department — May 2020 - August 2020

- Constructed a web application for managing human and building resources using **Springboot**, boosting resource management efficiency by 95%
- Developed and deployed a **CI/CD** pipeline using **Jenkins** and **Selenium** for automated web interface testing, reducing manual testing efforts by 8+ hours per week and improving testing accuracy and coverage
- Identified and resolved an **SQL injection** vulnerability in the employee ID system by leveraging **JDBC** prepared statements for parameterized queries and implementing robust input validation

SKILLS

Languages and Frameworks: Python, C, Java, TypeScript, Next.js, React, Flask, FastAPI, Springboot, Selenium, SQLite
AI Frameworks: NumPy, PyTorch, TensorFlow, Keras, nltk, Scikit-learn, wandb, OpenAI API
Cloud/DevOps: Cloud Services (AWS & GCP), Git, Linux, Docker, GitHub Actions, Jenkins, Anaconda
Security Testing: SonarQube, BurpSuite, Security Onion; threat models (NIST, STRIDE, PASTA, etc.), risk assessment

PROJECT EXPERIENCE

NIST GenAI (Sponsored by Federal Reserve Bank) — Carnegie Mellon University & Federal Reserve Bank
Technical Lead — August 2024 - December 2024

- Devised and applied backend microservices for an AI chatbot in Python using **boto3** and REST API
- Optimized backend components for scalability and high availability by leveraging AWS services, including S3 buckets for data storage, Lambda functions for serverless compute, Bedrock for building a knowledge base, and **Amplify** for CI/CD
- Delivered a production-ready system adopted by the Federal Reserve Bank, enabling improved automation & responsiveness

Labtool UI — Bucknell University
Lead Developer — August 2021 - December 2021

- Designed and developed a cross-platform JSON editor app tailored for lab configurations using **Electron** for the GUI and Python for backend logic. Introduced auto-formatting and validation. Cut configuration time from 2+ hours to 5 minutes
- Led a 4-person development team. Adopted **Scrum** and **Kanban** methodology with **Trello** to enhance task prioritization and visibility. Refined project development efficiency by 60%