

Quan Nguyen

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EDUCATION & CERTIFICATION

Arizona State University Bachelor of Science in Computer Science

Cumulative GPA: 3.7/4.0

Arizona State University Master of Science in Computer Engineering

Expected May 2027

Relevant Coursework: Data Structures and Algorithms, Software QA and Testing, Distributed Software Development, Distributed Database, Cloud Computing, Operating System, Scrum Methodologies, Machine Learning

EXPERIENCE

Next Lab

Oct 2025 – Current

Associate

Tempe, AZ

- Fine-tuning and developing an open-source Qwen3-1.7B SLM for Sesotho using a local RAG retrieval stack, deploying a quantized, low-power inference pipeline on Pi 5 (8 GB, M.2, Ubuntu) for solar-powered offline chat and semantic search.

Maricopa County Attorney Office

August 2024 – May 2025

Software Engineer Intern

Phoenix, AZ

- Led a greenfield project w/ a team of 5 interns, deploying an enterprise-grade report-writing system using **React.js** and **ASP.NET Core**, backed by **SQL Server** database and hosted on-premises with Windows Server.
- Built **20+ RESTful API** endpoints w/ Swagger, integrated Open XML SDK and Aspose.PDF for templates and redaction.
- Leveraged EF Core for initial data migrations, designed CI/CD pipelines w/ **Docker** and **Azure DevOps**, and followed Scrum Agile practices which enabled project completion 2 weeks ahead of schedule.

Crown Castle

June 2024 – August 2024

Software Engineer Intern

Houston, TX

- Streamlined the fiber network search engine w/ **Flask** and **Neo4j**, replacing a legacy relational architecture with high-performing graph structures, deployed to production for **30+** fiber sales engineers with asynchronously query execution.
- Optimized the ETL pipeline by batching and indexing **500k+** data objects and vertices, reduced query process time by **47%**.
- Containerized and tested services w/ **Docker** and **GitLab CI**, integrating **Prometheus** and **Grafana** for performance monitoring, error tracking (<2 issues/week), and weekly Scrum Meet documentation.

AWS Cloud Innovation Center

August 2023 – May 2025

Teaching Assistant

Tempe, AZ

- Taught AWS services such as S3, Lambda, EC2, load balancers, and Kubernetes through concepts and hands-on labs.
- Introduced networking basics including cryptography, TCP/IP, TLS/SSL, and beginner programming with HTML and CSS.
- Automated weekly grading pipeline w/ Lambda serverless scheduling and Canvas API, **reduced workload by 95%**.

PROJECTS

Global Internet Traffic Tracker | C#, ASP.NET, React.js, SQL Server, Docker, GitHub Actions

- Developed a full-stack web application to track global internet usage by country using ITU and World Bank datasets.
- Used **GitHub Actions** for automated deployment pipelines and used **Docker** for consistent cross-platform development.
- Added unit and integration tests with **xUnit**, code quality checks, and maintained comprehensive technical documentation.

ML Benchmark in Chest X-ray | Python, Pytorch, Pandas, NumPy

- Trained **deep learning** models (e.g. **UNet**, **ConvNeXt**, **SWIN Transformer**) using publicly available 2D and 3D datasets of Chest X-rays for producing new baselines of medical image classification, localization, and segmentation.
- Utilized **SLURM** on ASU's Sol HPC cluster within **Linux** to run large-scale computations and track performance metrics.

AI Text Detector Using NLP | Python, Pytorch, scikit-learn, Pandas, NumPy, Corpus, Jupyter Notebook

- Developed a novel human vs. AI text classification method using pretrained model **BERT**, producing **90% class accuracy**. Implemented and compared **classical ML algorithms against modern Transformer-based models** for baselines.

TECHNICAL SKILLS

Languages: Python, C#, C/C++, shell/bash, SQL (Postgres), Cypher, TypeScript, JavaScript, Latex

Frameworks: Hugging Face, Pytorch, TensorFlow, Flask, React.js, Node.js, Neo4j, PostgreSQL, Azure, AWS, SLURM

Operating System & Tools: Linux (Ubuntu), Windows 11, Unix, PowerShell, macOS, iOS, Git, Docker, Postman, VS Code, Visual Studio, Figma