SHASHANK BHAGAVATULA

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EDUCATION

University of Illinois at Urbana-Champaign — Urbana-Champaign, IL
Professional Masters of Computer Science (Networking and Distributed Systems) — *Aug 2025 - Present*

University of Illinois at Urbana-Champaign — Urbana-Champaign, IL
Bachelor of Science in Mathematics and Computer Science — *Aug 2022 – May 2025*

EXPERIENCE

Software Engineer — Aug 2025 - Present
Google — *Kirkland, WA*
- Improved Slicer data propagation efficiency by 50% by optimizing Slicer's assignment application logic, with improvement validated using detailed Java microbenchmarks.
- Strengthened the reliability of Slicer's producting monitoring by refining proxy alerts, reducing false positive rate by 20% after filtering for supported cells.

Infrastructure Team Co-Lead — Oct 2024 – May 2025
ACM@UIUC — *Champaign-Urbana, IL*
- Led development on a management API integrated with Azure AD and Discord API to allow ACM@UIUC's leads to assign leadership roles on major communication platforms.
- Moved important TypeScript services - link shortener, Stripe link generator for company sponsors, etc. - to ACM@UIUC's Core API.

Software Engineer Intern — May 2024 – Apr 2025
State Farm — *Atlanta, GA*
- Developed infrastructure for several APIs in Java and GoLang to manage rental/repair eligibility and coverage options for claimholders while moving to a cloud solution, improving service efficiency.
- Utilized Terraform for Infrastructure as Code (IaC) and optimization techniques to accurately provision, manage, and automate existing cloud resources on AWS, reducing environment setup time by 48%.

Undergraduate Course Assistant — Jan 2024 – May 2025
University of Illinois at Urbana-Champaign — *Champaign-Urbana, IL*
- Responsible for assisting with teaching CS 233 (Computer Architecture) to over 700 students with weekly office hours and lab assignment assistance.
- Assisted with building a new MIPS assembly lab from scratch in C/C++ and JavaScript where students program a robot to traverse a map as fast as possible.

Software Engineer Intern — Jan 2024 – May 2024
State Farm — *Champaign-Urbana, IL*
- Conducted Graph ML research on claim/participant Neo4j graph data, with a primary focus on leveraging Graph ML for fraud detection.
- Applied insights gained from research to create an API in Python that optimizes the search for fraudulent claims/policies using linear programming and targeted Neo4j queries, reducing data querying by around 80%.

PROJECTS

GreenChain Insights Dashboard | *Python, SQL, React, d3, Tableau* — Feb 2025 – May 2025
- Built backend and interactive dashboard visualizing GHG emissions across 1000+ industries, supporting dynamic filters and visualizations.
- Developed "Explore Carbon Footprint" tool to simulate purchase impacts; optimized queries, reducing data retrieval by 68%.

Agenda Visualization Application (AVA) | *Python, C++, HTML/CSS, JavaScript* — Aug 2024 – Dec 2024
- Created tool to help students optimize task scheduling, reducing planning time; submitted to HackIllinois 2024.
- Enhanced with TensorFlow ML model, LLM-based suggestions, and login/save features.

Malware Detection Classifier | *VirusTotal API, Python, HTML/CSS, JavaScript* — Aug 2023 – Dec 2023
- Developed tool leveraging VirusTotal API to identify system threats; submitted to HackIllinois 2023.
- Built Python ML model to handle complex prompts and predict recurring malware risks.

TECHNICAL SKILLS

Languages: Python, C/C++, Java, SQL, GoLang, Terraform, JavaScript, TypeScript, HTML/CSS, R, Haskell
Frameworks: React, Node.js, Flask, JUnit, WordPress, Fastify, Django, Spring Boot, Neo4j, d3
Developer Tools: Git, Docker, Amazon Web Services (AWS), PostgreSQL, Visual Studio Code, PyCharm, IntelliJ, Eclipse, Tableau
Libraries: pandas, NumPy, Matplotlib, TensorFlow, sklearn, PyTorch, SQLite3
Certifications: AWS Certified Cloud Practitioner (CCP), Hashicorp Terraform Associate