Anurag Gumidelli

+1 413-409-0631 | anurag.gumidelli23@gmail.com | LinkedIn

EDUCATION

University of Massachusetts Amherst, College of Information and Computer Science — Amherst, MA
Bachelor of Science — May 23'
Majors: Computer Science (minor in mathematics)
GPA: 4.0
Awards: Dean's List, Chancellor's Award ($7,000 per semester), Outstanding UCA
Coursework: Computer Networks, Computer Systems Principles, Operating Systems, Advanced Statistics

WORK EXPERIENCE

Ciena — Burlington, MA
Software Engineer II — July 23' – Present

- Optimized system performance by decoupling configuration and statistics messaging into separate queues, reducing message size by **98%** (48k → 2k bytes) and improving scalability of socket connections
- Led migration efforts from proprietary CLI to YANG-based HQoS configuration models and Virtual Forwarding Plane health monitoring models enabling NETCONF based standardized configuration
- Led a 3-person team to implement per-interface statistics for **multi-threaded** packet processing, enabling packet demarcation, worker identification, and protocol-level reporting; collaborated with cross-functional teams to support multiple protocols and improved traffic visibility for millions of packets per second
- Improved traffic throughput by **5%** through profiling and optimizing code, removing dead code and unnecessary dependencies; validated improvements using capacity testing, and traffic profiling

Amazon - AWS — Bellevue, WA
Software Engineer Intern — Sep 22' – Dec 22'

- Designed and implemented Amazon SNS Extended Client libraries in Python and JavaScript, overcoming the 256KB SNS payload limit by offloading large messages to Amazon S3, enabling reliable enterprise-scale messaging
- Ensured API parity and consistent developer experience across ecosystems by unifying design patterns in both languages, reducing onboarding friction for multi-language teams and accelerating adoption
- Delivered production-grade, open-source libraries aligned with AWS SDK best practices, including test automation, modular abstractions, and documentation — resulting in **1.5M+ all-time downloads (60K+ monthly)** and adoption by the developer community (https://pypistats.org/packages/amazon-sns-extended-client)

Juniper Networks — Westford, MA
Software Engineer Intern — May 22' – Aug 22'

- Interned with the 128 Technology Engineering department to work on the SD-WAN product
- Built an automated testing platform using C++ and Robot Framework to catch issues at build time which is estimated to reduce site events by **25%**
- Developed a Slack Bot for Customer Support teams to investigate and resolve customer reported issues. This bot reduced investigation time by streamlining data collection from the affected devices saving about **350 engineering hours**

University of Massachusetts - Amherst — Amherst, MA
Teaching Assistant - College of Information and Computer Science — Aug 20' – May 22'

- Tutored for 100+ hours to support students in classes
- Taught **100+** students helping them find their ways around Java and Python programming language

PROJECTS

Network Protocols - (Java and Python)

- Developed network communication protocols like **TCP using UDP** and BitTorrent protocol to compete against 120+ people to claim 1st place by achieving aggregate quickest runtimes
- Designed a **multi-threaded** network communication application optimized for the task of downloading small size data using Java and Python Sockets libraries
- Implemented application using **Java and Python Sockets** package to run the communication between client and server.

Open Match - (NextJS, Vercel, Django, LangChain, GCP)

- Created a platform to empower students and first-time contributors by matching their skills and interests with relevant GitHub issues, reducing friction and making open-source contributions more accessible
- Engineered backend services leveraging the GitHub APIs to fetch and index open-source issues, incorporating LLM-powered summarization to provide comprehensive insights for contributors
- Designed and implemented a matching engine using MongoDB Atlas and Large Language Models (LLMs) to generate semantic embeddings, enabling precise alignment of developer profiles with relevant open-source GitHub issues

SKILLS

- Languages: C/C++, Python, Java, JavaScript, YANG
- Tools: WindSurf, VSCode, Git, GitHub, Wireshark, Sprint
- Debugging: GDB debugger