

Ayush Sharma

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EDUCATION

New York University

Brooklyn, NY

Masters of Science in Computer Science | **CGPA: 3.9**

Aug 2025 – May 2027 (*Expected*)

Coursework: Big Data, Computer Networks, Operating Systems, Algorithms, Machine Learning, Databases

Vellore Institute of Technology

Vellore, TN

Bachelor of Technology in Computer Science | **CGPA: 8.73**

Jul 2019 – Jun 2023

Coursework: Data Structures & Algorithms, Artificial Intelligence, Cybersecurity

EXPERIENCE

Software Engineer 1

Jan 2023 – Jul 2025

Hewlett Packard Enterprise

Bengaluru, KA

- Migrated NFV apps from legacy VNFs to CNF(Kubernetes-based), **improving scalability & deployment time**
- Created distroless images for **faster deployment** and a **75% reduction in storage footprint. Reduced CVE attack surface by 90%** through automated dependency management ensuring up-to-date packages.
- Orchestrated data aggregation with **monitoring and alerting of 100+ metrics** using Prometheus and Grafana
- Integrated Azure Speech Services (ASR/TTS) with SIP/RTP stack, **leveraging experience with media server protocols** like Netann/MSMML and MSMML for enabling real-time transcription and voice-controlled IVR.
- Led a team to develop and **present at the Mobile World Congress 2024**, a scam detection model utilizing Azure Cognitive Speech Service for Speech-to-Text to safeguard users during live voice calls.
- Designed and developed a license generation tool **adopted by 8 teams**, featuring tamper-proof licenses, APIs for license management (expiry, additive, instant-on, perpetual, active/standby), and monitoring via Fluentd events
- Reduced testing cycles from days to 1 hour and enhanced application security** by creating CI/CD Jenkins pipelines to **assess code quality with 90% coverage**, integrating Selenium test framework for end-to-end GUI feature automation, and penetration testing to detect XSS and CSRF attacks.

Research Intern

Oct 2021 – April 2022

Samsung R&D Institute

Bengaluru, KA

- Developed a C++ library supporting 6 protocols for client-server communication in a mesh environment.
- Optimized library achieving **10% lower latency and 15% higher throughput** than standard TCP through multi-threading, async I/O, compression, connection pooling, ProtoBuf serialization, and zero-copy techniques.

Machine Learning Research Intern

Mar 2020 – June 2020

Indian Institute of Technology [Paper]

Kanpur, UP

- Developed CNN models with **15% higher accuracy** over ConvNet, VGG16 models under resource constraints.
- Conducted comparative analysis of CNN variants focusing on training complexity with recommendations for parallel training algorithms.

PROJECTS

Social Recommendation Engine | *Python, FastAPI, NetworkX, Stripe, GPT-5, LangChain*

[Project]

- Built a recommendation engine using collaborative filtering, spatial analysis, and social graphs for venue/companion matching across 100k+ check-ins, with multi-agent AI automating negotiations, bookings, and Stripe payments.

LeetCourt | *React, ElevenLabs, OpenRouter (GPT-5), Daytona, Galileo, Tigris*

[Project]

- Engineered a voice-interactive courtroom simulator with multi-agent AI judge and counsel, with reactive scoring engine that gamifies legal training by transforming PDF case files into real-time adversarial debates.

False Markets | *Python, FastAPI, TypeScript, NextJS, Redis, PostgreSQL, CoinGecko, yfinance, Alpaca*

[Project]

- Built an autonomous evolutionary backtesting system using 1-min tick data across 25+ crypto assets, powering a prediction & reasoning platform delivering sub-200ms finance analytics.

TECHNICAL SKILLS, ACHIEVEMENTS, CERTIFICATIONS

Languages: Java, Python, C/C++, Golang, SQL, MATLAB

Frameworks & Tools: Agile, NLTK, Tensorflow, BeautifulSoup, Git, Terraform, Linux, Tableau, Hadoop, Spark

Achievements: Winner at HackNYU, Winner in Tech@NYU Startup Week Buildathon, Winner at Daytona HackSprint

Certifications: Certified Kubernetes Application Developer (CKAD), AWS Certified Cloud Practitioner