

SANJAY KUMAR BASKARAN

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EDUCATION

Carnegie Mellon University

Master of Software Engineering in Scalable Systems

Pittsburgh, PA

Dec 2026

Vellore Institute of Technology

Bachelor of Technology in Computer Science | GPA: 8/10

Vellore, India

Jul 2024

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Python, C++, Solidity

Frameworks & Libraries: Express.js, Node.js, FastAPI, React.js, Next.js

Databases & Storage: PostgreSQL, MongoDB, Redis, Supabase, RDBMS

Cloud & Infrastructure: AWS, GCP, Docker, Kubernetes, CI/CD Pipelines, Linux Administration

Tools & Collaboration: Git, GitHub, JIRA, Postman

EXPERIENCE

Capx AI

Dubai, UAE | Hybrid

Software Engineer

Aug 2024 - Jul 2025

- Engineered a real-time messaging system using **AWS WebSocket API, Node.js, and Supabase**, serving **10,000+ concurrent** clients with optimized batching and session tracking.
- Spearheaded development** of the **Capx Super App**, an AI agent marketplace launched on the Capx Testnet, a custom network built on **Arbitrum Orbit**, attracting **400,000+ unique wallets**.
- Built decentralized trading platform via **Uniswap routers**, supporting **3M+ trades** and **300,000+ daily executions**.
- Architected Capx Central Authentication using custom OAuth with JWT and client-secret hashing, **securing interaction across 20+ AI agents**.
- Migrated infrastructure from Firestore to a self-hosted RDBMS, **reducing cloud costs by 80%**.
- Designed SQL triggers** and queries ensuring consistency during **66,000 ops/sec peak loads**.

Software Engineer Intern

Aug 2023 - Jul 2024

- Engineered a decentralized Loot Box mechanism that processed **600,000+ transactions** with 100% accuracy, using Solidity for on-chain rewards and **RDBMS with nanosecond timestamps** to manage **high concurrency**.
- Established deployment pipeline** with **GitHub Actions, Amazon ECR, and App Runner** to streamline **production releases**.

Flowace Technologies

Dallas, TX | Remote

Software Engineer Intern

Jul 2022 - Jul 2023

- Rewrote legacy C code** for Ubuntu app, ensuring Wayland compatibility.
- Built chrome extension** to log Asana hours and implemented OAuth code-grant with third-party apps (Node.js, loopback.io).

PROJECTS

Valorina

- Built a Discord bot** using **discord.py, aiohttp, and MongoDB**, serving **875,000+ users** across **15,000 servers**.
- Scaled via **sharding** and **dynamic EC2 scaling** for high-traffic resilience.

LEADERSHIP

Carnegie Mellon University - Master of Software Engineering

Pittsburgh, PA

Treasurer

Oct 2025 - Present

- Serve as **one of five core student leaders** overseeing the MSE cohort and guiding both **strategic** and **financial initiatives**.
- Manage MSE funds** and **reimbursements** to support cohort initiatives and events.

Computer Society of India - VIT Student Chapter

Vellore, India

Chairperson

Dec 2022 - Apr 2023

- Organized **10+ events** with 8,000+ participants and secured funding to expand CSI's outreach.
- Co-led Devspace 2022, an international hackathon with **1,500 participants** and **\$15,000 prize pool**.
- Initiated 'Tech Thursdays,' a weekly program still active, benefiting 100+ students.
- Directed 10+ training sessions**, fostering skill growth among CSI members.

Vellore Institute of Technology - Yantra Hackathon

Vellore, India

Judge

Jun 2023

- Judged 50 teams** at Yantra 2023, **VIT's flagship hackathon**, on innovation and technical feasibility.