Sanjit Kumar

linkedin.com/in/sanjit-kumar-b56b911a0 +1 2178196384 sanjitk3@illinois.edu github.com/sanjitk7 sanjitkumar.me

EDUCATION

University of Illinois at Urbana-Champaign, *Master of Computer Science* Aug 2022 – May 2024
3.89/4.00 GPA Champaign, USA
Relevant Coursework: Distributed Systems, OS Design, ML and Data Systems, Advanced Software Engineering

Vellore Institute of Technology, Vellore, *B.Tech Computer Science and Engineering* Jul 2018 – May 2022
9.23/10.00 GPA Vellore, India

SKILLS

Languages (Python, Java, C, C++) • **Computer Graphics** (OpenGL, WebGL)

Web Development (ReactJS, Node.js, Express.js, PHP, HTML/CSS) • **Mobile Development** (React Native, Expo)

Database Management (MySQL, MongoDB, Elasticsearch) • **DevOps** (AWS, Bash, Docker)

Systems Programming (Linux Kernel, Sockets, Hadoop, Apache Kafka, Data Plane Development Kit) • **Version Control** (Git, Github)

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant: Distributed Systems, *University of Illinois Urbana Champaign* Jan 2024 – May 2024
Champaign, IL, USA
- Worked with Dr. Radhika Mittal on the course *CS425: Distributed Systems* to provide industry relevant lessons for 200 graduate/undergraduate students.
- Assist them to build distributed & networked application projects.
- Helped re-inforce learning from lectures via bi-weekly office hours and assessing homework and projects.

Fall Software Engineer Intern, *Aviz Networks Inc.* Sep 2023 – Nov 2023
San Jose, CA, USA
- Developed and integrated a web UI, REST API, and Redis DB Cache for a Network Packet Collector.
- Performance tuned high throughput low latency network packet collector pipeline by batching packet payload to improve single packet processing time by 50%.
- Automated the configuration, build and execution of the packet collector with Bash scripts and Python.

Summer Software Engineer Intern, *Aviz Networks Inc.* May 2023 – Aug 2023
San Jose, CA, USA
- Designed and developed a highly performant and scalable network analyzer system in C++ that taps packets of high velocity traffic from network fabric of data centers to extract and stream metadata information.
- Leveraged scalable event processing systems like Kafka and Elasticsearch for further analytics.
- Benchmarked performance on physical network devices with Python based- and Ixia- network load generator to test for scalability.
- Enhanced the collector to enable streamlined packet filtering and destination selection via an REST API.

Software Developer Intern, *Zigma Software* Sep 2021 – Nov 2021
Erode, India
- Built a weigh-bridge management MERN stack web application for a 'trucks and heavy motor vehicles' weighing company. Programmed a dashboard for visualization of revenue metrics and constructed unit tests.
- Coordinated meetings with stakeholders for design and performance feedback and improvement.

Full Stack Developer Intern, *WebKnot Technologies Pvt. Ltd.* Nov 2020 – Dec 2020
Bangalore, India
- Integrated custom Tensorflow object detection models with Shinobi, a open source CCTV framework.
- Developed web pages with ReactJS and REST API with node.js and Express.js for two different MERN stack applications for local businesses in Bangalore.

PROJECTS

Yarn Inventory Manager
- MERN Stack web application that works as a website/catalogue for a yarn trading firm to receive product inquiries. Data collected is used to create visualizations for business intelligence. Also designed and developed an alternative JavaFX frontend .

Android Task Manager for Textile Industry
- Built a React Native Android application using Expo (cross platform mobile dev) to create and manage work assignments in textile firms.
- Deployed as a cloud application hosted on AWS EC2 using S3 with Mongo Atlas as data storage layer.
- Used OpenTelemetry Collector to centralize metrics from the client to Prometheus and Grafana to derive performance insights.
- Performance tuned for efficient image storage and retrieval via caching and lazy loading.

The Weekly Edge
- A full scale web application using Node.js, MongoDB and React for a weekly online newsletter of 'THEP Club, VIT'.
- Complete workflow from writing the article to reviewing and publishing it on the the website. Club members exclusive.

WildSprint
- A MERN stack fundraising platform that allows for donations via ether powered by Ethereum smart contracts.
- Dyte SDK used to live stream animals in their habitats to raise awareness.