Vedant Mehta

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Education

Master of Science in Software Engineering

Aug 2024 – May 2026

San Jose State University, San Jose, United States

GPA: 3.66/4.00

Coursework: Deep Learning, Distributed Systems, Enterprise Application Development, Data Mining

Bachelor of Technology in Computer Science and Engineering

Oct 2020 – June 2024

Nirma University, Ahmedabad, India

Coursework: Machine Learning, Cloud Computing, Data Structures and Algorithms, Database Management Systems, Operating Systems, Object Oriented Programming, Computer Networks, Big Data Analytics, Computer Vision, Statistics

Technical Skills

Programming Languages Python, Java, JavaScript, TypeScript, Go, C++, C, SQL

Web & Software Development React.js, Node.js, Express.js, Next.js, Django, Flask, HTML/CSS

Data Science & ML Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, Keras

Big Data & Streaming Apache Kafka, Hadoop, Spark, NoSQL Databases

Databases & Storage PostgreSQL, MySQL, MongoDB, SQLite

Cloud, DevOps & Automation AWS, GCP, Docker, Kubernetes, KubeVirt, Jenkins, Terraform

OS & Version Control Linux, Unix, Bash, Git/GitHub

Experience

Software Engineer Intern, Juniper Networks | Sunnyvale, US

May 2025 – Aug 2025

- Deployed Juniper vSRX (VM-based) firewalls in **Kubernetes** using **KubeVirt**, allowing full-featured firewall support in containerized environments where cSRX (container-based) firewalls were insufficient
- Reduced topology setup time from 4 minutes to 1 minute by automating deployment of single-node and high-availability multi-node vSRX network topologies using Helm charts
- Provisioned a bare-metal Kubernetes cluster via kubeadm with Calico CNI, incorporating Multus to enable complex bridge-based networking across VMs and pods
- Optimized image provisioning leveraging **DataVolume cloning** instead of virtctl upload, **decreasing provisioning time from 9s to 4s** and eliminating external client-to-cluster bandwidth usage

Software Engineer Intern, Techsture Technologies | Ahmedabad, India

Jan 2024 – May 2024

- Built 5 ERP modules with **Django** and **React**, streamlining payroll, attendance, event, task, and leave processes
- Implemented role-based access control and multi-factor authentication to ensure secure access across the organization's intranet portals

Summer Intern, Northern Trust | Pune, India

June 2023 – Aug 2023

- Integrated Natural Language Understanding into ServiceNow virtual agent workflows by surveying user utterances and mapping intents, facilitating automatic execution and cutting down IT help desk calls by 50%
- Programmed **JavaScript** functionality to monitor real-time status of critical services, displaying availability and error notifications for Microsoft and internal applications

Projects

Cloud IDE | MERN, WebSocket, AWS S3, GCP, Docker, Kubernetes | GitHub

Oct 2024 – Nov 2024

- Architected a secure, collaborative cloud IDE via MERN with real-time multi-user code editing and an integrated AI assistant providing contextual coding suggestions based on project-specific files, enhancing user productivity
- Orchestrated 3 microservices (authentication, resource provisioning, and coding interface) on Google Cloud Run utilizing Docker images, empowering efficient user access management and resource allocation
- Configured an auto-scaling Kubernetes cluster on Google Kubernetes Engine with a minimum of 2 and maximum of 5 E2-standard-8 nodes, providing on-demand scaling of user environments, resource isolation through dedicated containers, and reliable performance for 150+ concurrent users
- Facilitated WebSocket communication between frontend and backend for seamless real-time collaboration, allowing multiple users to edit and execute code simultaneously

Docu-LM | ColPali, RAG, OpenAI GPT-4, ReactJS, NodeJS, Flask | GitHub

Oct 2024

- Engineered a document retrieval system through RAG architecture, implementing image-based, page-level indexing to maintain visual context integrity
- Devised an advanced document processing pipeline via ColPali for page-level indexing, enabling precise retrieval of contextual information from complex multi-page documents
- Designed a user-friendly React interface allowing users to upload documents, incorporating an intelligent chatbot leveraging GPT-4 to provide comprehensive answers by analyzing charts, graphs, and text