

Venkatesh Kamat

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EDUCATION

University of Illinois Urbana Champaign

Master's in Computer Science - GPA: 4.0

Champaign, IL

Dec. 2025

Vishwakarma Institute of Information Technology

Bachelor's in Technology Computer Science - GPA: 3.88

Pune, India

May 2023

EXPERIENCE

Software Security Student Consultant

University of Illinois Urbana Champaign

Dec. 2024

Urbana, IL

- Collaborated with **IT and 5+ cross-functional teams** to integrate **distributed systems** and **security controls** via **CrowdStrike** to reduce security incidents by **20%**.
- Built **automated network monitoring tools** in **Golang** and **Python** to track **2,000+ IoT devices** in a production environment, improving asset visibility by **18 percent**.

Software Development Engineer Intern

Techechelons

Nov. 2022

Pune, India

- Led a **4-member team** building scalable **Python** backend components for a **blockchain startup**, improving delivery speed by **15%**.
- Designed **data-intensive services** with **MongoDB**, scaling APIs to support **3x traffic growth** in enterprise-grade infrastructure.
- Directed **DevOps automation** (CI/CD, load balancing, performance tuning), reducing deployment time by **30 percent**.

Software Development Engineer Intern

Code Gurukul

Dec. 2021

Remote

- Developed core **Python/Django services** and integrated with **HTML/CSS based UIs**, delivering end-to-end features used by **500+ daily users** on a Educational tech **startup**.
- Containerized applications with **Docker** and implemented **GitLab pipelines**, enabling faster, reliable releases for client-facing features.

PROJECTS

Cloud-Native Streaming Backend | *Event-driven, Kubernetes, Kafka, AWS*

Feb. 2025

- Built a **cloud-native microservices system** using **Node.js** orchestrated with **Kubernetes**, focusing on high availability and fault tolerance.
- Enabled **event-driven data flow** with **Apache Kafka** and **Redis**, processing **50k+ events**, improving throughput and latency in a distributed streaming pipeline.
- Integrated **HDFS** and **S3** for scalable storage and enforced **NAC** via **Nginx reverse proxy**.

ChatApp | *Socket.IO, Tailwind, Jest, MERN*

Nov 2024

- Launched a **real-time messaging platform** using the **MERN stack** and **Socket.IO**, supporting low-latency communication for **7 active users**.
- Implemented **JWT-based authentication** and role-safe access flows, reducing unauthorized access by **40%** while improving user trust.
- Deployed and validated workflows with **containerized services**, automated testing with **78% code coverage**, and production monitoring for reliability.

TECHNICAL SKILLS

Languages: Python, JavaScript, Typescript, Java, Go, Solidity, SQL, HTML, CSS

Frameworks: React, Node.js, Django, Flask, Express, GraphQL

Cloud and Infrastructure: Microsoft Azure, AWS, GCP, Docker, Kubernetes, Terraform, Linux

Networking and Security: TCP/IP, IAM, Firewalls, Encryption, Protocols, Cloud Security, SSL/TLS

Databases and Caching: MySQL, PostgreSQL, MongoDB, Redis, DynamoDB, Neo4j, Aurora

Tools: Git, GitHub, GitLab, Postman, VS Code, IntelliJ, Hadoop, Pyspark, Pandas, NumPy, System design

AI: Feature Engineering, Machine Learning, LLMs, MLOps, Model Deployment, Data Preprocessing, Vector Databases, Embeddings, RAG, Fine-tuning, Hyperparameter Tuning, Model Optimization, co-pilot, MCP integration