

Sanjeev Vijay Raichur

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SUMMARY

Software Engineer with 3+ years of experience building, deploying, and debugging full-stack applications using Python, Go, and JavaScript. Skilled in developing RESTful APIs and microservices with modern frameworks, databases, and DevOps tools. Strong foundation in data structures, algorithms, OOP, and software design principles. Actively seeking opportunities to design scalable systems and contribute to high-impact engineering teams.

EDUCATION

Michigan Technological University – Master's in Computer Science (GPA: 3.85 / 4.00)

08/2023 - 04/2025

SKILLS

Programming Languages: Python, Go, JavaScript, TypeScript, C/C++, SQL

Frameworks & Libraries: Django, Django REST Framework, Flask, Node.js, React.js, Next.js, Celery

Databases: PostgreSQL, MySQL, MongoDB

DevOps & Infrastructure: Docker, Git, Nginx, Linux, Redis, RabbitMQ, WebSockets, CI/CD

Cloud & Monitoring: AWS (EC2, S3, ECS, RDS, Lambda, CloudWatch, API Gateway), Sentry, BugSnag, New Relic

Other Skills: RESTful APIs, OAuth 2.0, HTML, CSS, Object-Oriented Design, Design Patterns, Data Structures & Algorithms, Database Design

EXPERIENCE

Michigan Technological University

Graduate Research / Teaching Assistant

Houghton, MI

05/2024 - 04/2025

- **Programming Languages (CS4121)** - Developed Bash scripts on Linux to automate testing and grading of Pascal compiler and Racket assignments.
- **Intro to C/C++ (CS1111)** - Led weekly C/C++ lab sessions for 80+ undergraduate students, emphasizing practical programming skills and debugging.
- **Summer Research** - Conducted automotive security research focused on analyzing CAN bus traffic and protocols. Interfaced with ECUs and hardware tools, and developed C++ scripts to simulate and inject CAN frames for testing and validation.

Crater.Club

Software Engineer II

Bangalore, India

02/2022 - 06/2023

- Built a real-time chat system with polls and reactions features for a live streaming platform using Django Channels and WebSockets, supporting over 5,000 concurrent connections with asynchronous consumers and Redis channel layers with persistent message storage using MongoDB.
- Architected and developed a Pub/Sub-based follow system for streamers, achieving a 99% successful delivery rate of stream notifications using Redis for real-time event processing, Celery for asynchronous task execution, and Celery Beat for scheduled jobs.
- Shipped REST APIs and frontend UI for the complete streamer experience, including a real-time analytics dashboard built with Django REST framework, Next.js, and Chart.js, enabling creators to track key performance metrics and boost user engagement.

ThinkLink

Software Engineer

Bangalore, India

10/2020- 01/2022

Horizon - <https://horizon.thinklink.io/>

- Built a logging service and set up distributed tracing with BugSnag for 8+ Go microservices, including a custom logging middleware to capture logs and metrics across microservices, reducing issue resolution time and increasing the visibility of each request end-to-end.
- Established coding standards and led a major code refactor initiative, applying SOLID principles and design patterns in Go, resulting in a more maintainable and streamlined codebase with zero code duplication.

CorkOwl - <https://www.corkowl.com/>

- As a founding engineer, delivered a modular, scalable multi-tenant wine e-commerce platform using microservices and RESTful APIs, achieving over 90% test coverage through Test-Driven Development (TDD) in Go. Integrated third-party tools like Stripe, PayPal, and FedEx for secure payments and shipping, driving seamless order processing and fulfillment.
- Designed and managed a relational database schema for a wine e-commerce product with 20+ tables using Sequelize ORM in Node.js, handling migrations, seeding, and versioning. Shipped backend services for order management, payment processing, and shipping to production.

Codemonk

Software Engineer

Bangalore, India

08/2019 - 09/2020

- Developed and deployed 8+ scalable backend applications using Django REST Framework and PostgreSQL, with Docker-based containerization and Gitlab CI/CD pipelines on AWS ECS, significantly accelerating development cycles and reducing time-to-production.
- Designed, developed, and deployed production-ready REST APIs on AWS for the Zoos of Karnataka mobile and web platforms within a 3-day deadline, delivering key features like OTP-based authentication, Razorpay payments, Sentry error monitoring, and animal adoption certificate generation.
- Built an offline-first Electron.js desktop app with CouchDB sync and automated updates via a Gitlab CI/CD pipeline and AWS S3, enabling reliable operations in low-connectivity environments.

Software Engineer Intern

03/2019 -07/2019

- Built a desktop application with Electron.js and a Flask server to automate wildlife image classification from forest trap cameras, integrating a machine learning model and real-time updates via WebSockets. Dockerized the app and set up a GitLab CI/CD pipeline to streamline deployments and push updates to AWS S3.
- Developed secure RESTful APIs using Django REST Framework for mobile and web applications, including a hiking app and a drone surveillance platform. Implemented OAuth 2.0 with JWT for authentication, enabled efficient file uploads to AWS S3 with multipart uploads, and integrated Google Maps API for real-time location tracking and trail mapping.

PROJECTS

OpenOs | *Next.js, NextAuth.js, Prisma, tRPC, Tailwind CSS*

Contributed key features such as autocomplete inputs, customizable templates, saved templates, command history, and bug fixes, significantly enhancing user experience and enabling template execution via URL query parameters.

malicious-packet-checking | *C++, Makefile*

Developed a network security tool to identify and manage malicious IP addresses, utilizing the SHA256 hashing algorithm and a Random Bloom Filter for efficient storage and detection.