Kiran Kamalakar

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SUMMARY

Graduate Computer Science student with 4 years of work experience in crafting scalable APIs and distributed systems. Expertise in integrating payment gateways, database schema designing, and OAuth2. Proven history of developing secure APIs. Strong background in cloud infrastructure (AWS). Seeking internship opportunities in summer 2025.

PROFESSIONAL EXPERIENCE

Senior Software Engineer, *True Sparrow, Pune, India* Jan 2023 – June 2024

- **Led** a team of **4** to develop **payment gateway** using Stripe Payment Intents and **Node.js** web APIs serving **20k+** users.
- Cut down operational expenses by **33%** by deploying **microservices** to AWS **Lambda** serverless architecture.
- Leveraged **SQS** and **EventBridge** to execute asynchronous workflows reducing costs by **15%**.
- Systematized database **indexing** in **Postgres**, decreasing query response time by **23%**.
- Implemented software development agents with the help of **Python**, **Typescript** (ES6), and OpenAI's chat completion APIs (GPT-4o model) for writing **Node.js APIs**. Decreased average API development time from **2 days** to **4-5 hours**.

Senior Software Engineer, *PLG Works, Pune, India* May 2022 – Jan 2023

- Engineered complex deployment process of Ghost server on AWS with **Terraform CDK** to provision infrastructure.
- Cut down infrastructure setting up time from **16-24** hours to **3-4** hours. Curtailed subsequent deployment time by **22%**.
- Drafted more than **20+** technical guides for **Docker** reducing orientation period for new hires by **25%**.
- Integrated amazon chime with **WebSockets** and **Socket.io** for online **streaming** for a virtual studio platform.

Software Engineer, *Moxie, Pune, India* May 2020 – Apr 2022

- Facilitated **end-to-end payment gateway** integration by developing **Node.js APIs** for payment creation and validation.
- Decreased network latency and enhanced user experience by achieving API **response time less than 2 seconds**, by caching (memcached) frequently used data in memory.
- Constructed **fuzzy query search** using **ElasticSearch** to tackle MySQL's slow query performance and limited real-time indexing problems. Deployed ElasticSearch to **Elastic Container Service** with EC2 **spot instances** to reduce costs.
- Optimized expenses from **$0.77/hr** to **$0.39/hr** and minimized average search time from **1.5-2** sec to **10-50** ms.

Blockchain Intern, *OST, Pune, India* Jan 2020 – Apr 2020

- Contributed to Matic-1 blockchain protocol utilizing **Solidity** smart contract programming language.
- Incorporated automated tests for ERC20 Gateway contracts employing **hardhat** improving overall coverage by **20%**.

PROJECTS

SlackSharp, *Hackathon Project* Sept 2023 – Oct 2023

- Enhanced team's communication by developing a slack bot leveraging **@slack/bolt** framework.
- Leveraged OpenAI's **Whisper** APIs for speech-to-text conversion and chat completion APIs for message formatting.

Jam, *True Sparrow* Mar 2023 – May 2023

- Developed a search system to improve the NFT retrieving experience from a pool of **8** million NFTs.
- Stored vector embeddings from OpenAI's **ADA V2** Model to Weaviate's **vector database** for fast, efficient retrieval of relevant NFTs. Resulted in **optimizing** search time by **45%** compared to MongoDB's fuzzy search.

EDUCATION

M. S. Computer Science, *Arizona State University, Ira A. Fulton School of Engineering, Tempe, AZ* Aug 2024 - May 2026
Relevant Coursework: Distributed Database Systems, Data Visualisation, Information Assurance and Security

B. E. Computer Engineering, *Pune Institute of Computer Technology, Pune, India* Aug 2016 - May 2020
Relevant Coursework: Data Structures, Algorithms, OS, Computer Networks, Database Systems, OOP, Distributed Systems

SKILLS

Areas : Data Structures, Algorithms, Design Patterns, Cloud Computing, Distributed Systems, Backend
Programming : JavaScript, TypeScript, Python, Java, Go, SQL, Git & GitHub, Software Development Lifecycle, Postman
Frameworks : Node.js, Express.js, Socket.io, React.js, Auth0, Sequelize ORM, SpringBoot, Jest, Junit, Mockito
Infrastructure : Amazon Web Services (AWS), Terraform, Docker, Kubernetes, GitHub Actions, Kafka, MongoDB, PostgreSQL, DynamoDB, Cassandra, Redis, Google Cloud Platform, GraphQL, Weaviate