

N K Vinay Kumar

San Francisco, CA, USA • +1 (628)-276-3863 • nandhikantivinayk@gmail.com • [GitHub](#) • [LinkedIn](#) • [Portfolio](#)

SKILLS

- **Programming Languages:** Java, Python, JavaScript, TypeScript, C/C++
- **Frameworks & Libraries:** React.js, Next.js, Spring Boot, Node.js, Express.js, Redux.js, Jest, HTML, CSS, Bootstrap
- **APIs & Databases:** REST APIs, GraphQL, MySQL, MongoDB, PostgreSQL
- **Cloud & Tools:** GCP, AWS, Git, Docker, Kubernetes, Linux, Jenkins, Cloud Functions, Postman, Maven
- **Other Skills:** Algorithms, Data Structures, Problem-solving, Agile, Analytical Thinking, Communication, Cross-functional Collaboration

EDUCATION

Master of Science in Computer Science

San Francisco State University • San Francisco, CA, USA • GPA: 3.9/4.0

Expected December 2024

Bachelor of Technology in Computer Science & Engineering

Guru Nanak Institute of Technology • Hyderabad, India

July 2018 - August 2022

PROFESSIONAL EXPERIENCE

San Francisco State University Research • San Francisco, CA, USA

Software Engineer Intern

May 2023 - December 2023

- Collaborated with a cross-functional team to build a **Generative AI** resume builder app with **React** and **JavaScript**, achieving consistent scores of **70+/100** on screening tools.
- Implemented 100% reusable **React** components, custom **hooks**, and **Context API**, enhancing code reusability and maintainability.
- Integrated **GPT**, developed **Python** methods and **Flask APIs** to automate resume creation process, reducing manual effort and cutting turnaround time up to **50%** through **language model prompt engineering**.
- Formulated and optimized **PostgreSQL** queries and designed complex **JSON** data storage and indexing for flexible resume structures.

San Francisco State University • San Francisco, CA, USA

Graduate Teaching Assistant

September 2023 - December 2023

- Delivered lectures on **Object-Oriented Programming**, **Microservices**, **Cloud Services**, **Version Control**, **Testing**, **CI/CD**, and **Agile practices**.
- Mentored **30+** students, provided collaborative assistance on group projects and conducted **code reviews**.

PROJECTS & OUTSIDE EXPERIENCE

Prep Pal (LangChain, FastAPI, RAG, GPT, MongoDB, Milvus)

- Developed **RAG chatbot** incorporating **GPT** using **LangChain** and **Python**, that aids students for personalized interview coaching.
- Implemented web scraping techniques and leveraged **NLP** to extract interview data. Built a data pipeline to automate the storage of extracted data and users resumes as embeddings into **MongoDB** data storage.
- Employed retrieval module with **vector similarity search** to fetch relevant data from the embeddings based on user's query, reducing irrelevant context load to **LLM** and improving chatbot accuracy up to **92%**.
- Optimized **RAG pipeline** with **MapReduce** for asynchronous **LLM** API requests, reducing extensive costs and improving response time.

Pulse Events (Next.js, Spring Boot, MongoDB, GCP)

- Developed an event hosting and management website with **Next.js**, **JAVA** and **Spring Boot**, integrated secure **JWT** authentication and role-based authorization, optimized **MongoDB** queries, resulting in enhanced **API security** and performance.
- Engineered front-end leveraging reusable components; boosted page load speed through **server-side rendering (SSR)** and **cloud CDN**, while ensuring mobile responsiveness and web content **accessibility** guidelines.
- Employed **Docker** and **GitHub Actions** for **CI/CD** workflows, facilitating automated deployments to **Google Kubernetes Engine**.
- Configured **load balancer** to distribute traffic across multiple pods, improving application reliability, performance, and user experience.

Picture Perfect for content creators (ReactJs, Django, Jest, MySQL, Python, Docker, Ngnix, AWS)

- Led a cross-functional team of 5 to develop an image sharing and digital marketplace web application, following end-to-end **Agile SDLC**.
- Designed and implemented highly available architecture on **AWS** using **EC2**, **S3**, and **RDS**, ensuring 99.9% uptime and improved scalability.
- Collaborated in designing and developing **Django RESTful API** endpoints with **Python** and optimized **SQL** queries through indexing.
- Incorporated image editing components in the **React** application using Canvas API, performed unit tests using **Jest** to ensure functionality.

Prayan (React Native, Expo, Firebase, Google Gemini, GCP)

- Developed an AI travel planner app using **React Native**, **Expo**, **Firestore (Firebase)**, and **Gemini API**, enhancing user experience by providing personalized itineraries, flight details, and hotel recommendations based on selected location, budget, and dates.
- Integrated **Google Places API**, and **Maps API** to build location-based search and recommendations, ensuring detailed trip planning.

ACTIVITIES & VOLUNTEERING

- Selected for President's Leadership Fellows program; engaging in leadership development activities, networking opportunities.
- Attended 3-day workshop on building RAG applications using Claude and Amazon Bed Rock at GenAI summit 2024

CERTIFICATIONS

- Google Cloud Developer Certificate | Meta React and React Native | Web Developer Certificate