

# Nandhi Kanti Vinay Kumar

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## EDUCATION

<b>San Francisco State University, San Francisco</b>	<b>GPA: 3.95/4.0</b>
Master of Science, Computer Science	May 2025
<b>Coursework:</b> Analysis of Algorithms, <b>Advanced Computer Networks</b> , Software Engineering, Artificial Intelligence, Database Management Systems, Pattern Matching and Machine Intelligence	
<b>Jawaharlal Nehru Technological University, Hyderabad</b>	
Bachelor of Technology, Computer Science and Engineering	Jul 2018 – Aug 2022
<b>Coursework:</b> Data Structures, Java Programming, <b>Operating Systems</b> , <b>Distributed Databases</b> , Python, Cloud Computing	

## TECHNICAL SKILLS

<b>Software Development:</b> Java, Python, JavaScript, C++, HTML, CSS, YAML/JSON
<b>Frameworks:</b> Spring Boot, Hibernate, Django, React, Next.js, JUnit, Jest
<b>Infrastructure and Cloud:</b> AWS (EC2, S3, VPC, ECS, IAM, Lambda, CloudFormation), Docker, Kubernetes, Microservices Architecture, Load Balancing, TCP/IP, Security Groups, CDN, DNS
<b>Databases:</b> SQL (MySQL, PostgreSQL), NoSQL (MongoDB, DynamoDB), Caching (Redis, Elasticache)
<b>DevOps &amp; Monitoring:</b> Git, AWS CloudWatch, CI/CD, Linux Kernel Internals, Observability tools, Performance profiling (Linux Perf), Postman

## EXPERIENCE

<b>Software Engineer, San Francisco State University</b> [React, Python, Flask, PostgreSQL, OpenAI API]	May 2023 – May 2024
<ul style="list-style-type: none"><li>Developed an <b>AI resume builder</b> with <b>React.js</b>, <b>Flask</b>, and <b>OpenAI API</b>, automating <b>70%</b> of the resume creation process</li><li>Enhanced user experience by developing <b>20+</b> reusable <b>React components</b>, delivering <b>consistent UI/UX</b> and functionality.</li><li>Devised an <b>NLP-based evaluation system</b>, boosting resume scores by over <b>20%</b> with automated feedback and suggestions.</li><li>Improved data retrieval by <b>40%</b> by optimizing <b>PostgreSQL</b> schemas for <b>JSON</b> storage, enabling dynamic resume customization.</li></ul>	
<b>Teaching Assistant, SFSU Department of Computer Science</b>	Sept 2023 – Dec 2023
<ul style="list-style-type: none"><li><b>Mentored 30+ students</b> in programming fundamentals, <b>Object-oriented design (OOPs)</b>, and <b>Microservices</b>, fostering critical problem-solving skills and improving their coding proficiency in <b>Java</b>.</li><li>Conducted <b>code reviews</b> and provided <b>debugging</b> support on group projects, leading to a <b>35%</b> improvement in grades.</li></ul>	
<b>Software Developer, Zenbyt</b> [React, Redux, Node.js, Express, Redis, PostgreSQL, Sequelize, AWS]	Jan 2022 – Dec 2022
<ul style="list-style-type: none"><li>Migrated a legacy <b>PHP</b> monolithic application to a modern stack using <b>React</b>, <b>Node.js</b>, and <b>Express</b>, cutting technical debt and boosting user retention by 25%.</li><li>Built scalable <b>RESTful APIs</b> with <b>Redis caching</b> to handle high traffic (100K+ daily requests) at sub-100ms latency, ensuring <b>reliability</b> at scale.</li><li>Redesigned database models using <b>Sequelize ORM</b> for <b>PostgreSQL</b> in a <b>SaaS</b> platform, improving query efficiency and <b>performance</b> by up to ~40%.</li><li>Implemented responsive frontend with <b>React.js</b> &amp; <b>Redux</b>, achieving faster page loads (~45%) &amp; higher engagement (~30%).</li><li>Automated infrastructure provisioning and deployment processes using <b>AWS services</b> (EC2, S3, RDS) and <b>Linux</b>, improving system <b>reliability</b>, <b>scalability</b>, and <b>Performance</b>.</li></ul>	

## ACADEMIC PROJECTS

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#### **Pulse Events** | [React, TypeScript, Java, Spring Boot, Redis, PostgreSQL, AWS] | [Link](#)

- Architected an **event management** platform using **React, Java, and Spring Boot**, implementing **JWT** authentication and role-based authorization with **Spring Security**.
- Built **REST APIs** using **Spring Boot** with error handling, **achieving <100ms** response times and enhancing **user experience**.
- **Optimized** data layer for scalability by integrating **Spring Data JPA/Hibernate ORM** with **PostgreSQL**, boosting data retrieval efficiency by **30%** and significantly reducing API latency.
- Integrated **AWS S3** for scalable media storage, architecting automated **file system** capable of handling **10,000+ concurrent uploads**.
- Constructed **CI/CD pipeline** using **Docker** and **GitHub Actions** for auto deployments on **Kubernetes** cluster with **99.9% uptime**.

#### **Picture Perfect** | [React, Django, Jest, Python, AWS, MySQL, JavaScript] | [Link](#)

- Built an Image sharing and marketplace application using **React** and **Django** with **AWS (EC2, S3, RDS)**, achieving **99.9%** uptime through **EC2 Auto Scaling**
- Established key **React** features for image editing, **content moderation**, and **search** functionality. Wrote **Jest** test suites to ensure component **reliability** and optimized **performance**.
- Utilized **Docker** for containerization, built **CI/CD** pipelines for automatic deployments on AWS EC2 instance. Demonstrated **Agile** project management proficiency, and innovative integration of technologies.
- Lead team and delegated tasks to team members while providing guidance, ensured timely completion of the project through weekly **SCRUM** meetings.

#### **Cloud Computing** | **AWS**

- Played around AWS services and gained hands-on experience designing and deploying scalable applications using **AWS core services (EC2, Auto Scaling, ELB, RDS)**, achieving **99.9% uptime** for high-traffic workloads.
- Secured cloud infrastructure with **IAM policies**, designing **VPC** architecture with **public/private subnets, NACLs, and security groups**, blocking unauthorized access attempts.
- Built serverless architectures with AWS Lambda, integrating SQS and SNS for event-driven processing, reducing latency by 40%.
- Automated infrastructure provisioning using **AWS CloudFormation**, enabling consistent environments across 3 regions and reducing deployment errors by 25%.

#### **CERTIFICATIONS & LEADERSHIP**

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- **Amazon Web Services** Certified Cloud Practitioner
- Awarded President's Leadership Certificate for fostering diversity in campus leadership and mentoring future fellows