

Gowri Sankar Koushik Pasumarthy

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EDUCATION

Stony Brook University

Aug 2023 – May 2025

Master of Science in Computer Science

GPA: 3.9/4.0

Course Work: Theory of Database, Machine Learning, Operating Systems, Data Science, Analysis of Algorithms, Data Structures, Object Oriented Programming, Design Patterns, Distributed Systems, Data Visualization

SKILLS

- **Languages:** Java (Spring Boot), Python, C/C++, C#, Golang, Scala, Ruby, JavaScript, SQL, NoSQL
- **Cloud Technologies:** AWS (ECS, DynamoDB), Azure Cloud, GCP, GitHub Actions, Jenkins, Docker, Ansible, Terraform, CI/CD
- **Databases:** MongoDB, MySQL, PostgreSQL, DynamoDB, Cassandra, ElasticSearch
- **Distributed Systems & Microservices:** Queues, Redis, Kafka, RabbitMQ, Zookeeper, Prometheus, Grafana, K8S, Load balancers
- **Frontend Development:** ReactJS, HTML, CSS, TypeScript, Angular, Salesforce Lightning Studio
- **Other Tools & Frameworks:** Flask, Node.js, Django, Linux, REST APIs, GraphQL, Postman, JUnit, Mockito, Hibernate

EXPERIENCE

Stony Brook University Labs

Jan 2024 – Dec 2024

Software Engineer

Stony Brook, NY

- Built the web app from scratch using **React** and **Flask**, applied UX best practices, improved navigation and reduced record retrieval times.
- Reduced manual data entry time by 70% by building an EMR management app using **PyPDF** for PDF parsing by encounter ID.
- Improved data retrieval speeds through optimized **MongoDB** indexing and data structure design, enhancing user experience.
- Implemented robust authentication workflows using **Microsoft Authentication Library (MSAL)** and **Azure Entra ID** with **OAuth 2.0**, ensuring secure session management and role-based access controls.

The Integrity Company

May 2024 - Aug 2024

Software Engineering Intern

Ocean Side, CA

- Developed the company web portal using **React.js**, **Node.js**, **Django**, **MySQL** for smooth communication between insurers and translators.
- Implemented secure user authentication and developed **Rest APIs** using **Auth0** and ensured effective version control using **Git**.
- Enhanced code reliability through testing with **Jest** and **Postman**, and deployed on **AWS**, improving application performance by 50%
- Streamlined **Agile** project management by automating pull request alerts and integrating **Jira** ticketing with **Slack** using **GitHub Actions**.

Bajaj Finserv

Jan 2023 - Jun 2023

Software Engineering Intern

Bangalore, India

- Enhanced POS loan application interface using **React** and **TypeScript**, improving responsiveness across web and mobile by 90%
- Implemented **CI/CD** pipeline with **GitHub** and **Jenkins** to automate testing using **JUnit** and **Mockito**, enhancing code quality and streamlining integration and deployment through **Azure DevOps**.
- Designed microservices for a 3-in-1 application using **Java Spring Boot**, integrating **REST APIs** and **Kafka** for real-time data streaming, which supported scalability for a widely downloaded app(100M+) on Google Play Store.
- Deployed containerized applications using **Docker** and **Kubernetes** to scale infrastructure, boosting operational efficiency by 40%
- Led migration of legacy reporting system to a modern web application using **Spring Boot** for backend and **Angular** for frontend.

PROJECTS

Microservices-Based Banking Platform

- Led a team of 4 developers to design and implement a scalable microservices architecture using **Java**, **Spring Boot**, and **Cassandra**, ensuring high availability.
- Utilized **Apache Kafka** for asynchronous communication and RPC, ensuring decoupling and improved data flow management.
- Developed robust RESTful APIs for inter-service communication and client interactions, monitored with **Prometheus** and **Grafana**.

FarmFresh - Streamlined DevOps for E-commerce

- Developed an e-commerce platform using **Java**, **Spring Boot**, **ReactJS**, and **Hibernate**, ensuring scalability with **MongoDB**.
- Automated CI/CD pipelines with **Jenkins** and **Kubernetes**, reducing deployment time and improving operational efficiency.
- Implemented **ElasticSearch** for advanced search functionality, improving user engagement and satisfaction.

Distributed Key-Value Store

- Developed a distributed key-value store that required high availability and fault tolerance across multiple nodes.
- Built the system using **Golang** and implemented the **Raft consensus protocol**, ensuring leader election, consistent data replication, and improved system reliability.