Venkata Anirudh Pillala

• pillalaanirudh@gmail.com • (470) 884 1509 • LinkedIn • GitHub

EDUCATION

Emory University, *MSc Computer Science*   **Atlanta, GA**
GPA: 3.74/4.0 - Academic Excellence Scholarship (50% Tuition)   Aug 2023 - May 2025
Coursework: Software Engineering, Data Privacy, Machine Learning, Algorithms

EXPERIENCE

Emory University - LUMeN Lab   **Atlanta, GA**
Software Developer   Jan 2024 - May 2025

- Built a modular web interface using **JavaScript** and the **Qualtrics API**, enhancing response logic flexibility and boosting engagement through a scalable interface.
- Designed and implemented a real-time **data pipeline** to monitor survey participation using scheduled triggers and response logs, enabling gap detection and improving compliance monitoring accuracy by **70%**.
- Automated image ingestion workflows in **R** to batch-rename and upload research snapshots, reducing manual effort by **50%** and streamlining centralized data access.

Accenture (Client: Kaiser Permanente)   **Bengaluru, India**
Full stack Engineering Analyst   Aug 2021 - Jun 2023

- Developed and maintained microservices-based enterprise applications using **Java Spring Boot** and **Angular**, delivering RESTful APIs, Kafka-driven event workflows, and secure authentication with **Spring Security** (JWT + RBAC) for role-based access control.
- Architected and deployed **110+ Azure VMs** and **Kubernetes** workloads (AKS) using **Terraform** and **Ansible**, implementing automated scaling policies and secure environment-specific provisioning for dev, staging, and production.
- Designed and optimized CI/CD pipelines in GitLab and **GitHub Actions** for backend, frontend, and data workflows, enabling parallel execution, automated testing, and environment parameterization, cutting deployment time by **40%**.
- Built distributed data processing pipelines integrating **Kafka**, **AWS SQS**, and **Redis** to handle streaming ingestion, caching, and message queuing for low-latency applications.
- Implemented ETL workflows for operational datasets using **Python** and **SQL**, applying data validation and transformation logic to improve reliability of analytics pipelines consumed by downstream services.
- Collaborated with **cross-functional engineering,** data, and QA teams in **Agile** sprints to design, deliver, and optimize platform features, performing peer code reviews and design discussions.
- Enhanced observability by deploying **Prometheus**, **Grafana**, **Azure Monitor**, and log aggregation pipelines, reducing mean time to detect (MTTD) and mean time to recovery (MTTR) for production issues.

Virtusa   **Chennai, India**
Software Engineering Intern   May 2020 - Jul 2020

- Developed a modular **microservices-based e-commerce platform** using **Java Spring Boot**, **Angular**, and **RESTful APIs**, enabling independent deployment and scaling of core services such as cart, payment, and order management.
- Implemented secure **PayPal payment integration** with asynchronous event handling, fault-tolerant transaction verification, and idempotent request design to ensure payment reliability.
- Optimized **MySQL** data access layer by introducing query indexing, optimizing table joins, and applying the Repository and Service Layer patterns for cleaner separation of concerns, improving response latency by **65%**.
- Applied **SOLID** principles and system design best practices, including the **Factory** and **Strategy patterns** for payment and shipping modules, improving maintainability and extensibility of the codebase.
- Designed **stateless microservices** secured with **Spring Security**, implementing token-based authentication (**JWT**) and role-based access control (RBAC) to ensure compliance, data integrity, and secure multi-user operations.

PROJECTS

ReSource – Food Share App - GitHub

- Collaborated on a web platform that connects food donors with recipients to reduce waste and support local communities.
- Developed key frontend modules using **ReactJS** for different UI workflows, enabling modular feature deployment and **A/B testing** across the platform.
- Developed modular backend services in **Flask** with **PostgreSQL**, applying separation of concerns across routing, business logic, and database layers to simplify scaling and feature additions.
- Integrated **real-time messaging** with **Socket.IO** using an **event-driven pub-sub model**, enabling asynchronous coordination between users and reducing message delays.

SKILLS

Python, Java, TypeScript, JavaScript, C++, React, Angular, Node JS, Tailwind CSS, MySQL, PostgreSQL, Linux, Bash, AWS, Kubernetes, GIT, Jira, JUnit, Mockito, TestNG, Swagger, Splunk, Docker, Terraform, Jenkins, GitHub Actions, Ansible, REST APIs, Linux, Git, Agile.