

# PAVAN ONTEDDU

Long Beach, CA | (224) 434-7365 | [pallteddu12@gmail.com](mailto:pallteddu12@gmail.com)

## EDUCATION

**California State University Long Beach**, Master's in Computer Science (GPA: **3.8**) **Jan 2023 - Dec 2024**  
Coursework: Data Structures, Analysis of Algorithms, Programming Languages, Software Engineering, Operating Systems, Computer Networks, Compilers, Machine Learning, Computer Architecture, Network Programming, Cloud Computing, Software Testing

## TECHNICAL SKILLS

**Programming & Web Technologies:** Python, Java, C, C++, Rust, Golang, PHP, React.js, Node.js, Angular, Django, JavaScript, Flask, HTML5, CSS3, RESTful APIs, React Native, Redux, Servlets, Spring Boot, XML, Maven, AJAX, JSON, JQuery, Bootstrap  
**Database:** SQL, MySQL, MongoDB, PostgreSQL, DynamoDB  
**Networking:** TCP/IP, DHCP, DNS, IPv4, IPv6, CIDR, Subnetting, Routing, Switching, Network Security  
**Cloud:** AWS (IAM, EC2, S3, RDS, Route53, CloudFormation, CloudWatch, Lambda, Redshift, SageMaker, Kinesis, ECR, EKS)  
**Other:** Linux, Unix, Docker, Kubernetes, Git, GitHub, JIRA, Terraform, Apache Spark, Apache Tomcat, Apache Kafka, Elastic Search

## EXPERIENCE

**Graduate Assistant**, *California State University Long Beach, United States* **Aug 2024 - Dec 2024**

- Designed and developed a student resource management system using **Flask**, **React**, **JavaScript**, and **RESTful APIs**, enabling seamless access to resources for over **25,000** students and faculty members across multiple departments
- Engineered a robust **CI/CD pipeline** using **Jenkins** and implemented advanced **data pipelines** with **Apache Airflow**, reducing deployment times by **60%** and optimizing **PostgreSQL** queries through partitioning, resulting in a **75%** reduction in processing time for critical university operations like enrollment(using **FCFS scheduling**) and course scheduling
- Developed custom automation scripts using **Python** and **Bash**, streamlining administrative workflows and reducing manual effort by **65%**, leading to a significant boost in operational efficiency across **12** university departments
- Strengthened user authentication by implementing **Golang-based API s**, resulting in a **30%** increase in platform engagement
- Deployed serverless solutions using **AWS Lambda** and **AWS CloudFormation**, efficiently **managing resources** to scale the application and handle peak load times, ensuring optimal performance and cost-efficiency

**Technical Student Assistant**, *California State University Long Beach, United States* **Nov 2023 - Aug 2024**

- Engineered a robust university bookstore management system using **Java** and **Spring Boot**, optimizing inventory processes and reducing transaction times by **30%**, enhancing experience for **3,000+** daily users
- Optimized **SQL queries** and scaled the backend infrastructure using **AWS EC2** and **RDS**, incorporating **connection pooling** to handle large data sets efficiently, resulting in a **45%** improvement in response times and bolstered system reliability
- Created **GraphQL APIs** for efficient data fetching, reducing over-fetching by **40%** and enabling real-time inventory updates, significantly enhancing the system's functionality and user experience
- Contributed to the implementation of **OAuth 2.0** and **JWT** for secure authentication, reducing unauthorized access attempts by **75%** and strengthening overall system security

**Software Developer**, *Craftsvilla, India* **Sep 2020 - Dec 2022**

- Developed a high-performance e-commerce platform using **React.js**, **Node.js**, and **MongoDB**, optimizing the user interface and implementing **RESTful APIs**, resulting in a **50%** increase in page load speed and a **40%** boost in conversion rates
- Architected and implemented a scalable **microservices** ecosystem with **Python** and **Flask**, utilizing **Apache Kafka** for event-driven communication and **Elasticsearch** for efficient search functionality, improving system responsiveness by **55%**
- Leveraged **AWS** services (**EC2**, **S3**, **RDS**, **Lambda**, **CloudWatch**) to create a robust, auto-scaling infrastructure, reducing operational costs by **35%** while maintaining high performance during peak traffic periods
- Implemented **CI/CD pipelines** using **Jenkins** and **GitHub Actions**, containerizing services with **Docker** and **Kubernetes**, which decreased deployment time by **70%** and improved team productivity
- Optimized database operations using **PostgreSQL** and **Redis caching**, reducing query response times by **65%**
- Developed cross-platform mobile applications using **React Native** and **Redux**, integrating with backend services via **GraphQL APIs**, resulting in a unified codebase that reduced development time by **40%** across iOS and Android platforms

**Student Intern**, *Guru Nanak Institutions Technical Campus* **Jan 2020 - Jul 2020**

- Designed and implemented a library management system using **OOP** principles, **Java**, and **Spring Boot**, incorporating role-based access control and real-time notifications, reducing manual operations by **50%**

**Internship**, *Red Hat Academy* **Jul 2019 - Aug 2019**

- Gained hands-on experience in **Linux** internals, focusing on **kernel diagnostics**, **OS/storage systems**, and **job scheduling**, while optimizing **resource management** and performance in containerized environments using **Puppet** and **Kubernetes**
- Implemented **network configurations** and **troubleshooting**, enhancing system connectivity in containerized environments

## ACADEMIC PROJECTS

**FeedHub: Social Media Application** **Oct 2024**

- Developed and deployed a scalable full-stack social media platform using **Flask**, **React**, **PostgreSQL**, **AWS** (**EC2**, **S3**, **Docker**, **Elastic Beanstalk**), **JWT** authentication, **CRUD**, **Redux**, and **API** optimization