

# YESHVANTH RAJU KURAPATI

📍 San Jose, CA 95126 | 📞 669-204-8989 | ✉ Email | 🔗 LinkedIn | 🌐 Portfolio | 🏠 Github

## EDUCATION

San Jose State University – Master's in Computer Software Engineering (GPA: 3.48)  
National Institute of Technology – Bachelor's in Computer Science (GPA: 3.5)

Aug 2023 – Present  
Aug 2019 – May 2023

## EXPERIENCE

Research Assistant, Lucas College of Business (SJSU) | San Jose, California

Nov 2023 – Present

- Implemented a real-time analytics pipeline ingesting **200+ GB/day** of student LMS data using **Apache Kafka** and **Spark Structured Streaming**, enabling instant usage insights for 50+ faculty.
- Built a microservices architecture on AWS (ECS + Lambda), automating workflows and reducing operational overhead by **30%**.
- Developed interactive **React dashboards** for administrators, delivering dynamic data visualization with sub-second response times.
- Collaborated with cross-disciplinary teams** to design a fault-tolerant indexing module, allowing real-time data lookups and sub-100ms query responses.

Software Development Engineer, Accrescent Digital | Remote

June 2022 – May 2023

- Engineered multiple **Node.js microservices** orchestrated via Kubernetes, scaling to handle **5K requests/min** at peak demand.
- Rolled out a CI/CD pipeline using Helm, enabling **zero-downtime releases** and automated canary deployments across 10+ services.
- Implemented **Redis caching** to reduce 95th-percentile API latency from 850ms to 600ms, employing query optimization in PostgreSQL.
- Introduced Prometheus/Grafana monitoring for 30+ metrics, cutting mean time to detection (MTTD) by **50%** through proactive alerts.
- Achieved a 2x improvement in overall reliability by implementing advanced health checks and rolling updates.
- Designed and implemented a distributed indexing service** for fast queries on real-time data streams, ensuring system-wide fault tolerance while operating in an agile environment.

Software Engineering Intern, NIT - Warangal | Warangal, India

Jan 2022 – June 2022

- Developed a **document management system** for 20,000+ academic records using Python microservices, storing data via AWS S3.
- Integrated **OpenCV**-based image preprocessing to standardize clarity, boosting overall document readability by 25%.
- Automated tasks with AWS Lambda triggers, reducing manual workflows by **40%** and expediting cross-department data sharing.
- Collaborated with cross-disciplinary R&D teams** to deliver a new document classification module from ambiguous requirements, reducing manual triage time by 25%.

Software Developer Intern, 1Stop.ai | Remote

Sept 2021 – Nov 2021

- Developed a **serverless e-commerce aggregator** in Node.js and AWS, integrating 10+ vendor APIs for real-time product listings and cutting average search latency by **25%**.
- Implemented a React.js **inventory management** interface, achieving sub-300ms average response times for 5K+ daily active users.
- Secured user sessions using JWT-based authentication and role-based access control, minimizing unauthorized access incidents.
- Built from scratch a **scalable microservice** for real-time pricing predictions, managing frequent vendor updates in an agile environment.

## PROJECTS

High-performance Distributed Data Lake | *gRPC, React.js, Apache Arrow Flight, Azure Blob, S3*

Dec 2023 - Feb 2024

- Built a hybrid cloud solution that transfers data **40%** faster between Azure Blob and AWS S3.
- Implemented chunking and parallel upload for 10GB+ files, reducing upload times by 30%.
- Incorporated distributed indexing to enable sub-second queries across multi-tenant e-commerce datasets.

Real-time Reservation System | *React.js, Redux, Node.js, AWS, Redis, MongoDB, TypeScript*

Nov 2023 - Jan 2024

- Developed an Admin Dashboard using Redux and RESTful APIs, with role-based access control to simplify operational workflows.
- Scaled to 1,000+ users, using Redis for distributed locking to prevent overbooking and ensure data integrity.
- Ensured fault tolerance and sub-second query responses by integrating a microservices architecture with real-time event streaming.

## SKILLS

**Languages:** JavaScript/TypeScript, Python, C++, C, SQL

**Frontend & Backend:** React, React Native, Next.js, HTML5, CSS3 (Sass)

**Backend:** Node.js, Express.js, REST APIs, GraphQL, Microservices, gRPC

**Cloud & DevOps:** AWS (EC2, Lambda, S3, ECS), Docker, Kubernetes, Jenkins, CI/CD

**Databases:** PostgreSQL, MySQL, MongoDB, Redis

**Distributed Systems:** Large-scale architecture, fault-tolerant design, indexing & query systems, real-time analytics

**Tools & Practices:** Git, Webpack, Babel, Terraform, Agile/Scrum, Test-Driven Development