

ANJAN MANDAL

Monroe, LA | 318-690-7227 | anjanmandal2076@gmail.com | www.linkedin.com/in/madalak/ | anjanmandal.com

EDUCATION

University of Louisiana at Monroe, Monroe, LA

Bachelor of Science in Computer Science (Honors Program)

GPA: 3.96

Aug 2022 - May 2026

SKILLS

Languages & Frameworks: JavaScript, TypeScript, Python, Java, C/C++, C#, PHP, VB.NET, Node.js (Express), FastAPI, ASP.NET Core, Django, Laravel, GraphQL, socket.io, React, React Native, Next.js, Angular, Redux, HTML5, CSS3, Tailwind CSS, Material UI, Bootstrap, Prisma, Sequelize, Mongoose, Firebase, Pandas, NumPy, Jest, Mocha, Cypress, SonarQube, Postman, OAuth2, JWT, Semgrep
Databases, Cloud & DevOps: PostgreSQL, MySQL, MongoDB, Microsoft SQL Server, Redis, PgBouncer, RabbitMQ, Celery, AWS (EKS, Lambda, S3, EC2), Docker, Azure, Kubernetes, Argo CD, Terraform, Ansible, Nginx, PM2, Linux, Git, GitHub Actions, Jenkins, GitLab

EXPERIENCE

SquarePlanIT, Monroe, LA

Lead Software Engineering Intern

Jul 2024 – Aug 2025

- Improved response time by 88% and reduced PostgreSQL IOPS by 68% by implementing a Redis cache-aside layer with Lua pub/sub in a high-traffic Node.js API, enabling sub-100ms page loads for over 10,000 requests per minute
- Reduced CI time by 67% by developing and containerizing Jest unit and Mocha integration tests, parallelizing them in a Jenkins-on-Kubernetes pipeline, and enforcing an 80% coverage threshold, leading to a 35% drop in production bugs
- Achieved 99.9% uptime for 7+ Node.js microservices serving 2,000+ users by automating EKS scaling with AWS Lambda, optimizing HPA/VPA, and delivering zero-downtime rolling deployments via Argo CD and GitOps
- Migrated a Node.js backend from Sequelize to Prisma by introspecting 40+ existing MySQL tables and resolving relational mappings, reducing query complexity, and enabling zero-downtime migrations
- Redesigned a manual booking system into a scalable lodging platform with React and Node.js/GraphQL, serving 2,000+ users with 30% higher conversions, and improved maintainability through modular CI-tested architecture
- Engineered authentication system by storing session IDs in encrypted Redis, implementing OAuth2 with JWT refresh tokens, and enforcing RBAC, preventing unauthorized access and reducing auth-related issues by 60%

University of Louisiana at Monroe, Monroe, LA

Teaching Assistant and Emerging Scholar Program Recipient

Jan 2024 – May 2024

- Increased student coding skills by 30% through regular LeetCode challenges in Java and Python and developed a visual application to demonstrate complex algorithms and data structures resulting in a 40% improvement in student grades
- Selected as 1 of 5 Emerging Scholars from 300+ CS majors to build an AI-powered static analyzer for OWASP Top 10 flaws that uncovered 50+ vulnerabilities in departmental projects, cutting remediation time by 85%

National Innovation Center, Kathmandu, Nepal

Software Engineering Intern

May 2022 – Dec 2022

- Reduced deployment downtime by 60% through automating manual infrastructure provisioning and deployments with Terraform and Ansible (Ubuntu, EC2, Nginx, PM2), ensuring 99% uptime across all environments
- Improved MongoDB analytics performance by 50% by optimizing slow queries with composite indexes and Mongoose aggregation pipelines, enabling dashboards to support 2x as many concurrent users without additional infrastructure

PROJECTS

Autism Speaks AI

2025

- Founded Autism Speaks AI, an AI-powered platform for conversation coaching and emotion recognition that served 100+ autistic individuals and was selected as a top 4 finalist in the Louisiana Nexus Technology Cup
- Won 1st place at ULM Hackathon 2025 and two regional contests by pitching a Node.js AI platform that increased weekly communication practice by 55% for 100+ autistic users. [Explore the platform here](#)

Help Hub

2024

- Built an AI-powered platform with Node.js, TensorFlow, and React to match users with professionals, boosting accessibility by 30% and cutting costs by 20% using real-time auctions and user-defined budgets.
- Generated 100+ professional engagements in 6 months by connecting talent with clients through AI matchmaking and real-time bidding, driving economic empowerment and career growth. [Project link here](#)

Okay Journey

2022

- Co-developed "Okay Journey" travel app and website, improving transportation convenience in Nepal by 30% through backend enhancements, real-time updates, and consistent pricing.
- Secured 2020 seed funding from Nepal's National Innovation Center and scaled Okay Journey into a nationwide bus-booking platform featured in Business 360, improving rural transportation for thousands. [Visit the app here](#)