RIYAJ CHAULAGAIN

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EDUCATION

Southeastern Louisiana University, Hammond, LA **GPA: 3.96/4.00**

*B.S. in **Computer Science**, Minor in **Mathematics*** *Expected Graduation: December 2027*

- **Relevant Coursework**: Data Structures & Algorithms, Software Engineering, Artificial Intelligence, Computer Organization & Architecture, Operating Systems, Computer Networking & Security, Machine Learning
- **Honors & Awards**: President's List (Multiple Semesters), Priority Honors Scholarship, SELU Integration Bee Runner-Up, Award for Outstanding Leadership, Student Organization Excellence Award, Upsilon Pi Epsilon (UPE) Honors Society (Inducted Member)
- **Leadership & Involvement**: Vice President of Upsilon Pi Epsilon (UPE) Honors Society, Vice President of Nepalese Student Association at Southeastern (NSAS), Treasurer of Association of Applied Cybersecurity - Southeastern (AAC)

TECHNICAL SKILLS

- **Programming Languages**: C#, Java, Python, JavaScript, TypeScript, SQL, Rust, HTML/CSS
- **Frameworks**: .NET, ASP.NET Core, React, React Native, Node.js, Express.js, Flask, FastAPI
- **Cloud & DevOps**: Docker, CI/CD (Jenkins, Azure DevOps), Azure Functions, Google Cloud Platform (GCP), Linux, Git, GitHub
- **Databases**: PostgreSQL, SQL Server, MySQL, MongoDB, Firebase, Supabase
- **Software Engineering**: REST APIs, Microservices, OOP, Data Structures & Algorithms, Unit Testing, Agile/Scrum, MVC
- **AI/ML & Data**: OpenAI, MCP, PyTorch, Scikit-learn, NumPy, Pandas, LangChain, RAG, Vector Embeddings

WORK EXPERIENCE

Software Developer Intern | *AWC Inc., Baton Rouge, LA* *May 2026 - Aug 2026*

- Built an AI-powered **Natural Language Query** (NLQ) chatbot for AWC's Sales Pipeline Dashboard, enabling business users to retrieve sales, customer, revenue, profit, booking, and shipping data through conversational prompts.
- Developed an end-to-end **AI query pipeline** integrating **OpenAI**, a custom **Python MCP server** with 36 tools, **C# ASP.NET REST APIs**, and **PostgreSQL** to translate natural-language requests into structured business-data queries and responses.
- Engineered a **C# ETL pipeline** to synchronize PostgreSQL data nightly and implemented **Azure DevOps CI/CD** for automated builds, testing, and deployments, keeping business data current while improving release consistency.

Teaching Assistant | *Southeastern Louisiana University, Hammond, LA* *Jun 2025 - Present*

- Mentor 30+ high school teachers in **Java**, **Python**, **OOP**, **Data Structures & Algorithms**, and debugging through hands-on labs, office hours, and individualized technical support.
- Develop 50+ technical learning resources and lead programming labs covering **algorithms**, **React Native**, **Node.js**, **MongoDB**, **Git**, code reviews, and testing to strengthen practical software development skills.

Senior Mathematics Tutor | *Southeastern Louisiana University, Hammond, LA* *Aug 2026 - Present*

- Tutor university students in **Algebra**, **Calculus**, and **Statistics** and collaborate with faculty as an embedded tutor, leading exam review sessions and delivering individualized instruction to strengthen problem-solving and academic performance.

Undergraduate Research Assistant | *Southeastern Louisiana University, Hammond, LA* *Nov 2024 - Aug 2025*

- Developed an **LLM benchmarking platform** using **React**, **Firebase**, and **REST APIs** to evaluate OpenAI, Gemini, and Claude models, automating model comparison workflows and reducing manual evaluation by **5+ hours per week**.
- Engineered a secure **React/Firebase e-library** with session-based authentication, role-based access control, and real-time content management, improving protected access to academic resources and supporting research workflows.

PROJECT EXPERIENCE

AI Smart Stick | *Assistive Technology for Visually Impaired Users* *Jan 2026 - May 2026*

- Developed an AI-powered smart stick using **Raspberry Pi**, **YOLOv8**, **computer vision**, and **ultrasonic sensor** to detect nearby objects, estimate distance, and deliver real-time audio and haptic obstacle alerts.
- Engineered a caregiver monitoring application using **Python** and **Express.js**, integrating live GPS tracking and image-based safety alerts to support remote monitoring and improve user safety.

Cargo Games | *Distributed Real-Time Platform* *Aug 2025 - Dec 2025*

- Launched a real-time multiplayer platform with **Rust** (Axum), **React**, and **WebSockets**, enabling matchmaking, live game-state synchronization, chat, and concurrent multiplayer sessions across multiple games.
- Designed asynchronous backend services with **Tokio**, room-based broadcasting, and modular game logic, integrating automated **CI/CD** pipelines for reliable deployments of UNO, Tic-Tac-Toe, and Rock-Paper-Scissors.

Agri-Tech | *IoT, Cloud & AI Integration* *Jul 2025 - Aug 2025*

- Delivered a cross-platform **React Native** app with a **Flask** backend and **Supabase** to process real-time IoT sensor data, monitor soil and crop conditions, and deliver AI-driven recommendations using **Gemma 2 9B**.
- Implemented **REST APIs** for sensor data storage, retrieval, and AI chat, adding **structured logging**, **error handling**, and **Docker** containerization to improve backend reliability and streamline deployment.

ACTIV-ATE | *Full-Stack Web App* *Jan 2025 - May 2025*

- Built a full-stack fitness tracking platform using **React/TypeScript**, **ASP.NET Core (C#)**, **Entity Framework Core**, and **SQL Server**, applying **MVC** architecture to design authenticated **REST APIs** and **CRUD** workflows that enable users to track food, exercise, weight, and personalized fitness goals through interactive progress dashboards.