Riddhimaan Senapati

[Website](#)   [GitHub](#)   [Email](#)   [LinkedIn](#)

EDUCATION & AWARDS:

University of Massachusetts Amherst | Manning College of Information and Computer Science

BS Major: Computer Science (Honors) | **Minor:** Business Management | **Certificate:** iCons

- Winner of Chancellor's Award for BSCS. Winner of Baystate Scholarship for MSCS.
- Commonwealth Honors College student (top 5% of Class) Conducting breakthrough research on *Fortifying LLM Relevance Judgements against Query Injection attacks*.
- Appointed to official Dean's List on Every Semester starting from Fall 2022.
- CS Courses: Algorithms for Data Science, Systems for Data Science, Intro. to Simulation, Software Engineering Project Management, Practice & Application of Data Management, Machine Learning, Artificial Intelligence, AI Alignment, Systems for Deep Learning.

Expected BS Graduation: Dec 2025
BSCS Major GPA: 4.0/4.0
Honors Society: Phi Kappa Phi
Licenses & Certifications:
AWS Certified AI Practitioner
AWS Certified Cloud Practitioner
Admitted to MSCS at UMass (Data Science & AI Concentration)
Expected MS Graduation: May 2027

WORK EXPERIENCES:

AI for Commonwealth of Massachusetts (Mass.Gov) — Apr 2025– Sept 2025

Position: AI & AWS Intern (Hybrid) — Amherst, MA

- Built an innovative Retrieval Augmented Generation (RAG) chatbot using streamlit, LangChain, AWS Bedrock for the UMass Unity HPC & AI platform, serving 500+ users with technical support hosted at the Massachusetts Green High Performance Computing Center (MGHPCC).
- Engineered an automated data pipeline for AWS Knowledge Base, leveraging AWS Lambda and EventBridge to refresh 164+ documents weekly, ensuring data accuracy and currency for 500+ users.
- Implemented CI/CD pipeline with GitHub Actions, Docker and AWS CloudFormation to deploy and manage application on AWS ECS with 99.99% uptime. Enhanced accessibility to MGHPCC resources, reducing average support response time by 30%.
- Above AI innovative solution presented to the Massachusetts Governor and citation & commendation received for transforming state services

Software Developer at BUILD UMass Amherst — Sep 2024– Present

Position: Full Stack Software Developer (Onsite) — Amherst, MA

- Built React Native online application with local storage for offline access, enhancing user interaction experience and satisfaction by 25% through their perception feedback within an Agile sprint framework. Also holds the position of Event Coordinator at BUILD UMass.

LTIMindtree, Chennai India — Dec 2023 – Jan 2024

Position: AI/ML Intern (Onsite) — Chennai, India

- Designed benchmark functions to Analyze the results of Database Migration from SQL Server to Microsoft Fabric using 1000+ queries.
- Worked with Azure OpenAI API to convert SQL queries from one format to another for database migration resulting in a 25% improvement in query development time.

Undergraduate Course Assistant (UCA) at UMass Amherst — Sep 2023– Present

*Position: **Head UCA** and Team Leader for Course on Reasoning Under Uncertainty (FA'25), UCA for Search Engines, Introduction to Computation Courses (FA'23 to SP'25) (Onsite)* — Amherst, MA

- Assigned the role of Head UCA / TA for Course on Reasoning under Uncertainty from FA'25. Mentored 80+ students as TA for Senior level Search Engines optimization (CS446) course during SP '25 in my junior year.
- Led tutorial sessions and review classes in Introduction to Computation (CS 250) by addressing over 100 student questions and grading assignments for 270+ students biweekly, enhancing student understanding, coding skills and course concept & performance.

PROJECTS:

Project: [Recuvia](#) — Spring 25, Amherst, MA

- Built a semantic search platform with CLIP, Supabase Auth, and a custom UI (Next.js, React, TypeScript), processing items with flexible text/image matching.
- Optimized API workflow by combining embedding generation and image upload in a single call with model caching and batching, staying within Vercel's free tier limits (60-second timeout, 1 GB RAM)

Project: [Plowtion](#) — Fall 24, Amherst, MA

- Led a team of 5 developers during 36-hour hackathon (HackUMass XII). Optimized a responsive web application using Next.js and Tailwind CSS, enhancing user experience and performance by 30%. Containerized the application with Docker, reduced deployment time by 40%.

Project: [tldrmail](#) — Spring 24, Amherst, MA

- Built a functional AI-powered email assistant within 24 hours with a team of 2 delivering email summarization, event extraction, and deadline tracking.
- Integrated Clerk authentication with Gmail and Google Calendar APIs and optimized API calls to enable a smooth, unified user experience.

[Open-Source Contributor](#) — Fall 24 - Present, Amherst, MA

- Refactored Langfair to support customizable failure messages, automated documentation versioning and build using GitHub actions

SKILLS:

Languages: Python, Java, C, JavaScript, TypeScript, SQL, HTML, CSS, R, MATLAB

Tools: AWS, Microsoft Azure, Cloud Computing, Cloud Platform, Cloud Services, Microsoft Fabric, GitHub, MongoDB, React.js, Next.js, React Native, Node.js, Linux, Open AI API, REST API, FastAPI, NLTK, spaCy, Beautiful Soup, Transformer Architectures, BERT and GPT model, LangChain, scikit-learn, TensorFlow/Keras, Hugging Face, MS Excel, Tableau, Gradio, ChatGPT, Google Suite