

MD. ADIB HASAN

Aspiring AI Engineer | LLM Systems, RAG & Agentic Pipelines

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PROFESSIONAL SUMMARY

3rd-year Electrical & Computer Engineering student (RUET) building applied AI systems, backed by hands-on coursework in LLM engineering fundamentals (OpenAI API, LangChain, RAG, vector databases) and three shipped personal projects spanning a RAG/agentic pipeline and privacy-first web apps. Builds fast using AI-assisted coding tools like Claude Code, and is now extending that speed into engineering AI systems directly. Led a funded 4-person startup team (1 of 5 selected from 130+ applicants) and has competed in five national hackathons.

EDUCATION

B.Sc. in Electrical & Computer Engineering | Rajshahi University of Engineering & Technology (RUET) 2023 – Present (3rd Year, 2nd Semester)

- Current CGPA: 3.69 / 4.00
- Relevant Coursework: C Programming, OOP (C++/Java), Data Structures & Algorithms, Database Management, Software Engineering, Computer Organisation & Architecture, Microprocessor, Discrete Mathematics, Digital Techniques

TECHNICAL SKILLS

AI/ML & LLM Engineering: OpenAI API, LangChain, Retrieval-Augmented Generation (RAG), Prompt Engineering, Hugging Face (Transformers, Pipelines), Embeddings & Semantic Search

Data & Backend Infrastructure: Pinecone, ChromaDB, Supabase (PostgreSQL), Firebase / Firestore, SQL

Languages: Python, JavaScript, TypeScript, HTML, CSS, SQL

Core Software Engineering: Object-Oriented Programming, Unit Testing (pytest), Git/GitHub

Deployment & Tooling: Vercel, Cloudflare Pages, Cloudflare Turnstile, Brevo, Postman

AI / LLM PROJECT

RAG & Agentic LLM Pipeline | DataCamp certification project

2026

Python | LangChain | Pinecone | ChromaDB | OpenAI API | Hugging Face

- Built a modular RAG pipeline that ingests and chunks YouTube transcripts, embeds them via the OpenAI API, and retrieves context through namespaced Pinecone indexes to generate grounded responses — packaged as a tested Python module (pytest, PEP 8) rather than a one-off script.
- Extended the same techniques to build a ChromaDB-based semantic search module and a LangChain agent (ReAct pattern) with custom tool calls, plus a minimal MCP server exposing those tools for external LLM access.
- Completed DataCamp's 10-course, 29-hour Associate AI Engineer certification, covering prompting, embeddings, RAG vs. fine-tuning trade-offs, and LLMops fundamentals.

SOFTWARE ENGINEERING PROJECTS

RCS — RUET Computing Society Website (Organization Project, In Development)

2026

Next.js 15 | React 19 | TypeScript | Tailwind CSS v4 | Supabase | Cloudflare Turnstile | Brevo | Vercel

- Developing the official RUET Computing Society website as a full-stack Next.js 15 / React 19 platform for the organization, with the frontend currently live at a testing URL ahead of public launch: rcs-indol.vercel.app
- Built a self-hosted front end with Tailwind CSS v4, Motion, Lenis, and OGL powering a custom HUD-style motion/visual system, achieving a perfect 100/100 Lighthouse score across Performance, Accessibility, Best Practices, and SEO, with graceful fallbacks when JavaScript or motion is disabled.
- Extending the project into a full-stack platform (backend in progress, not yet deployed): building the database layer on Supabase (PostgreSQL), separate admin and moderator dashboards for managing content and applications, Cloudflare Turnstile for bot/spam protection on public forms, and Brevo for transactional and notification emails.

Business Model Canvas Builder — Privacy-First Strategy Tool (Personal Project, Launched)

2026

Astro | TypeScript | Browser localStorage

- Built a free, account-free Business Model Canvas / Lean Canvas / Value Proposition Canvas generator where users fill in canvas blocks directly in the browser and export to Word, PowerPoint, PDF, or PNG in one click, achieving a perfect 100/100 Lighthouse score across Performance, Accessibility, Best Practices, and SEO; live at thebusinessmodelcanvas.com
- Implemented zero-backend, client-side persistence (canvas data lives only in-browser) with JSON save/load for cross-device portability, four visual themes, and light/dark mode.
- Generated real editable exports rather than static images: the Word file renders as a genuine 5×2 table and the PowerPoint file as nine independently editable shapes on one slide.
- Within two weeks of launch, gained organic search visibility across 28 countries and all 7 language versions (EN, FR, ES, DE, ID, IT, PT), including a page-one average ranking (~9th position) for French-language queries per Google Search Console — an early signal of strong technical SEO.

Simple Kanban Board — Privacy-First Personal Task Manager (Personal Project, Pre-Launch)

2026

Astro | TypeScript | Browser localStorage

- Building a zero-backend, privacy-first kanban board with Astro and TypeScript that persists all data to browser localStorage — no account, server, or database — with cross-tab sync and full offline capability after first load, achieving a perfect 100/100 Lighthouse score across Performance, Accessibility, Best Practices, and SEO; currently live at a testing URL ahead of launch: simplekanbanboard.pages.dev
- Implemented drag-and-drop and keyboard-accessible card management, WIP limits, undo history, and multi-format export (PNG, PDF, CSV, JSON, Markdown) alongside six live templates and worked examples for different workflows.

EXPERIENCE

Team Leader | UIHP Innovation Cohort 5 — Incubation Program

2024

- Secured 40,000 BDT in pre-seed funding by leading a 4-person startup team selected as 1 of only 5 funded teams from 130+ applicants, delivering a functional MVP two weeks ahead of deadline.
- Won continued stakeholder investment by presenting product roadmap and MVP architecture to a panel of industry judges, enabling accelerated product validation.

Full-Stack Hackathon Developer | National Hackathons

2024 – 2025

- Built and shipped 3 full-stack AI web apps solo within 24–48 hour hackathon windows across national competitions (InnovateX, SOLVIO AI, Infinity AI Buildfest), using Claude Code and OpenAI API-driven prompt chains for rapid scaffolding and deployment — placements listed under Key Achievements.

KEY ACHIEVEMENTS

Funding: 1 of 5 Teams Funded — UIHP Innovation Cohort 5 (130+ applicant teams; 40,000 BDT pre-seed grant)

Competition Wins: Winner — Build with AI, Hackdays @ RUET (2026); 1st Runner-Up — RCS Portfolio Hackathon, RUET Computing Society (2026); 2nd Runner-Up — Hult Prize at RUET (2026)

Hackathon Placements: Top 100 — VCP Challenge, Infinity AI Buildfest (Cloudcamp BD x BRAC University, 2026); Top 50 — InnovateX Hackathon (BUBT x Programming Hero); Top 50 — SOLVIO AI Hackathon (Sheba Platform); 13th Place — SciBlitz 2.0 National Hackathon, IEEE CUET Student Branch (2026)

Other Recognition: 7th Place — Research Poster Presentation, RUET

CERTIFICATIONS

- Associate AI Engineer for Developers — DataCamp (29 hrs, 10 courses, Aug 2026): OpenAI API & Responses API, Prompt Engineering, Hugging Face, LLMops, Embeddings, Pinecone, LangChain, Model Context Protocol (MCP), Software Engineering Principles in Python
- Agentic AI — DeepLearning.AI: AI Agents, Multi-step Workflows, RAG Systems, Tool Use & Function Calling

ACTIVITIES & LANGUAGES

Organiser: Technocracy Lite — Intra-RUET Programming Competition & Hackathon (2026); RUET ECE Department Events (2025)

Other Involvement: Campus Ambassador — Televerse 1.0, CUET (2025); Volunteer — BDSET Job Fair at RUET (2026)

Languages: Bangla (Native) | English (Intermediate) | Hindi (Intermediate) | German (Beginner)