

Jahangir Hossain

AI/Software Engineer

4th Year CSE student

INTP-A

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📄 Jahangir Hossain

EDUCATION

- **Jagannath University (Last Semester)** *Expected Graduation : April 2025*
B.Sc. in Computer Science and Engineering CGPA: 3.78 out of 4.00
- **Alhaz Noor Mia College** *2019*
HSC GPA: 5.00 out of 5.00
- **Tutatoly High School** *2017*
SSC GPA: 5.00 out of 5.00

EXPERIENCE

- **Maxint** *March 2025-Now*
contractual Software Engineer (Full Time - Remote) San Francisco, CA
 - Built Finsight, a Robust RAG based LLM model, by which user will be able to discuss their spending, assets and other financial insight.
 - Created and deployed a Regression Based auto Transaction Categorization model which can automatically predict the transaction category from the description.
 - Stacks: Typescript, Langchain, Groq, Cloudflare Worker ai, Postgres(Supabase), Fastify, ONNX Runtime, Pytorch
- **SimpliSolve LLC** *April 15 2024-February 2025*
Software Engineer (Full Time - Remote) Emily Rd, Dallas, Texas, USA
 - Making efficient trading bot and Craft intricate algorithms to forecast stock market trends and execute trades efficiently. Thorough testing ensures reliability, while constant optimization enhances performance and scalability.
 - Stacks: Python(pandas, numpy, matplotlib), Fast Api, Zookeeper, Kafka, Docker, Next JS, AWS-(ECR, EC2, RDS)
- **Mpbian IT** *June 2022-Running*
Technical Advisor - past: Full time Software Developer Mohammadpur, Dhaka
 - Designed, Developed and Maintained Ed-Tech Platform and LMS software. Scaled to 50K MAU.
 - Implemented an Education ai chatbot with Deepseek R1 + GROQ + Pinecode + Jina Embedding
 - Exam Feature: Implemented contest like Live Exam System with Merit, Rating Change and many more and the CMS automated using LLMs
 - Stacks: Next js, Langchain, Pinecode, Express JS, VPS, MySQL, Prisma ORM, Redis, Cloudflare, Tailwind CSS

PERSONAL PROJECTS


- **Easy Neural Network Visualizer** *Jan 2025*
A tool to visualize neural network architectures and training processes
 - A user-friendly web tool that dynamically brings neural network architectures and training processes to life, offering real-time insights into weights, biases, and backpropagation for a deeper, hands-on understanding of AI models with deeper visualization of Auto Gradients using typescript and visualized using Next js
 - 📄 Visit Repository
 - 📺 Show Demo
- **GPT for Kazi Nazrul Islam Poems** *Jan 2025*
A GPT model to predict poems of Kazi Nazrul Islam
 - Built a GPT from scratch to predict poems of Kazi Nazrul Islam using Transformer
 - 📄 Visit Notebook
- **TimeGRPO (Thesis Work)** *Ongoing*
Time Series Forecasting using Group Relative Policy Optimization
 - Exploring advanced Transformer-based architectures for time series forecasting, inspired by recent breakthroughs such as TimeMixer and TimeXer.

- Motivated by the DeepSeekMath paper, we are integrating Group Relative Policy Optimization (GRPO)—a memory-efficient reinforcement learning method—to dynamically adapt forecasting strategies.
- Our thesis investigates how GRPO can optimize model weighting across varying horizons and enhance robustness against non-stationary patterns in time series data.

• Shuno

Mar 2024


AI powered universe where anything can be listened

- Shuno is an AI powered audio streaming app where Musics, Podcasts, Audio books and Poems are in one platform.
- Stacks: Flutter, Hive, Node js, PostgreSQL, PgVector, Prisma ORM, AWS S3, AWS EC2, Nginx, Apace Strom, Redis, Kafka
- We have used Lang-Chain, Vector Embedding and PgVector as Vector database to make its contents easy for searching, indexing and clustering  See Pitch Deck

• CodeSohoj

April 2023

An Online Judge and Problem Solving Platform

- Tools & technologies used: PHP, JS, Python, MySQL
- My Academic web project in a team. We have build an entire online judge in php and a Judge Server on Python.  Visit Repository

SKILLS AND INTERESTS

Languages: Typescript, Python, Java, C++, SQL, Regex

Frameworks: Fast API, Next.js, Express js, Langchain, Embeddings, Pytorch, React Native

AI Tool Skill: VS code copilot with Clause 3.7(Coding) > Chatgpt 4o and o1(General) > Deepseek(Reasoning) > Qwen(Longer Context based Task) > Gemini

Devops: AWS EC2, ECR, RDS, S3, Docker, Terraform, Kubernetes, Cloudflare

Data Analysis: Pandas, Numpy, matplotlib, Google Colab

Databases: PostgreSQL, MySQL, Supabase, Firebase, Prisma ORM, Piencone

Areas of Interest: Playing Chess, Philosophy, Teaching and Sharing Knowledge, Music & Poetry

ACHIEVEMENTS

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|---|-------------------------|
| • BUET CSE FEST Hackathon 2024- EasyTrip | <i>Champion</i> |
| • Nasa Space App Challenge- Dhaka Region, Team : Quantum Voyagers | <i>Champion</i> |
| • Code Samurai 2024 Hackathon - Team : Quantum Guys | <i>5th Place</i> |
| • CSE Day Festival 2024- Intra University Project Showcasing (Shuno) | <i>Champion</i> |
| • KYAU National Hackathon 2023 - Smart Village System Management | <i>Champion</i> |
| • HackHolyoke 2020 - CareBuddy | <i>Champion</i> |
| • HackHolyoke 2021- Best Financial Management Category (Money Tracker) | <i>Champion</i> |
| • CSE Day 2023- Project Showcasing | <i>1st Runner-Up</i> |
| • RUET CSE Fest 2022- Software Showcasing | <i>1st Runner Up</i> |
| • Nacter Robotic Olympiad 2022- Software Showcasing(Go Bangladesh) | <i>1st Runner Up</i> |
| • RUET CSE Fest 2022- (Idea Competition) | <i>2nd Runner Up</i> |
| • App Showcasing by JnU IT Society 2022- Accelerator | <i>Second Runner Up</i> |
| • LU CSE Carnival Hackathon 2023- Teach In | <i>Ranked 4th</i> |
| • SUST SWE Technovent Hackathon 2023- Garage Chai | <i>Ranked 11th</i> |
| • Mujib 100 idea contest 2021- Go Bangladesh | <i>Secured TOP 30</i> |
| • National Science and Technology Science Fair 2019- Upazila Region (Senior Group) | <i>1st Place</i> |
| • National Science Olympiad 2019- Upazila Region | <i>3rd</i> |