Farhan Mashrur

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Education

Cornell University, Bachelor of Arts | **GPA:** 3.85/4.0 — Expected May 2027
- **Majors: Computer Science** (BA), **Economics** (BA)
- **Coursework**: Machine Learning | Systems Architecture | Object-Oriented Programming and Data Structures | Probability & Statistics | Linear Algebra | Functional Programming | Python | Discrete Mathematics | Risk & Insurance

Professional Experience

Co-Founder / Full-Stack Engineer | JobLink (Startup) | Ithaca, NY — Feb 2025 – Present
- Built AI job-tracker with **React (TS)**, **Flask**, **PostgreSQL**; auto-parses Gmail to unify job data.
- Created NLP pipeline (**LLM + spaCy + regex**) with **97.82% precision** for company, role, status extraction.
- Led dev from wireframes to launch: **OAuth Gmail sync**, REST APIs, smart reminders; raised beta engagement **40%**.

Software Engineering Intern | BRAC Bkash Limited | Dhaka, Bangladesh — Jun 2024 – Aug 2024
- Deployed a real-time office seating system across **5** floors and **400+** employees with interactive multi-floor layouts.
- Integrated **7 Spring Boot** microservices with **AWS DynamoDB** and **S3**, handling **100K+** seat queries daily.
- Built an admin CMS supporting **30+** office managers and processing **20K+** configuration changes per month.

Teaching Assistant | Computer Science - CS 1340 | Cornell University — Jan 2025 – Present
- Assist Professor Jon Kleinberg in a **750+** student course; run office hours and lead algorithm discussions.

Leadership Experience

Cornell Data Strategy | **Vice President of Technology** — Aug 2024 – Present
- Led tech initiatives across multiple verticals; managed **3+ engineering teams** totaling **25+** developers.
- Oversaw engineering execution for initiatives generating **$1.6M+** in business value, optimizing resources by **23%**, and supporting solutions across **8** industries.

Project: Real Estate Agent Ranking Model | **Data Analyst Lead** — Jan 2025 – May 2025
- Built supervised model to rank high-potential agents for a **$650M+** firm (**175+** agents).
- Engineered MLS-based features (volume, growth, efficiency) for multi-factor scoring.
- Improved recruitment by targeting **$3M–$5M** agents with strong performance.

Project: TableTalk | **Software Lead** — Oct 2024 - Dec 2024
- Co-led team of **7** building full-stack app scraping **1K+** Google Maps reviews via **Selenium**.
- Applied **Gaussian Mixture Models** with **PCA** on **Flask/SQL** backend to reveal review patterns.
- Built **OpenAI**-based sentiment pipeline analyzing **50K+** reviews with **92%** F1 score.

Cornell Fintech Club | **Software Developer** — Sept 2023 – Present
- Helped build Stock Sentiment Platform with search, portfolio, and real-time indicators for **500+** tickers.
- Gathered user feedback from **40+** testers, refining MVP to improve engagement by **15%**.
- Led UX design with **8** wireframes covering stock tickers, news feeds, and auth flows.

Projects

Poultry Disease Detection (1st Place, Cornell Hackathon) | TensorFlow, PyTorch — Feb 2025
- Built AI that flags infections **3** days pre-onset from **12,000** spectrograms; reached **94%** accuracy.
- Designed **5**-layer CNN targeting **20–22 kHz** vocal bands; inference in **25 ms** on Raspberry Pi 4.
- Applied **MobileNetV3** to **8,000** fecal images, achieving **93%** precision.

OCaml Trader | OCaml, Lwt, Financial APIs — Sept 2024 – Dec 2024
- Simulated **1000+** trades on live feeds spanning **500** equities; real-time P/L dashboard.
- Leveraged **Lwt** to keep price-fetch latency under **50 ms** and transaction error rate **<0.1%**.
- Implemented portfolio ops—buy/sell, performance, persistence—across **12** metrics; visual reports render in **200 ms**.

Technical Skills

- **Languages**: Java, Python, C/C++, Assembly, OCaml, JavaScript, TypeScript, HTML, CSS
- **Technologies**: React, NextJS, Vite.js, Node.js, Git, AWS, Microsoft Office Suite, Figma
- **Machine Learning**: TensorFlow, PyTorch, Scikit-learn, Pandas, Matplotlib, NumPy
- **Backend & Databases**: Flask, Spring Boot, MySQL, SQLite, Firebase, PostgreSQL