Hammad Farooqi

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EDUCATION

Princeton University | *Computer Science B.S.E.* | *GPA: 3.97/4.00*　　　　　　　　　　　　　May 2027
- Minors: Statistics & Machine Learning, Applied Mathematics, Finance
- Coursework: Algorithms & Data Structures, Machine Learning, Programming Systems, Distributed Systems, Computer Architecture and Organization, Probability and Stochastic Systems, Advanced Linear Algebra
- Activities: Tau Beta Pi, Tiger Sustainable Investment Group, Princeton Chess Team, Cap & Gown Club

EXPERIENCE

Amazon Web Services (AWS) - Redshift　　　　　　　　　　　　　　　　　　May 2025 – Aug 2025
Software Development Engineer Intern - AI/ML　　　　　　　　　　　　　　　　　　　　Redmond, WA
- Developed a generative AI system to automatically triage test failures and publish code reviews with proposed fixes, reducing engineering time on ticket resolution by 40%, saving $25K+ in weekly eng. hours spent on 400+ tickets.
- Integrated 5 AWS services to collect relevant logs and context to successfully process 88% of recent test failures.
- Applied multi-agent orchestration workflows with Claude models to perform root cause analysis with an average 79% accuracy across test failures.

Ahmed Lab, Rutgers Institute for Health　　　　　　　　　　　　　　　May 2024 – April 2025
Machine Learning Research Intern　　　　　　　　　　　　　　　　　　　　New Brunswick, NJ
- Published a customizable web platform to discover genetic markers of specified diseases and predict patient risk.
- Implemented a synthesis of 5 classical machine learning algorithms using GPU-accelerated Python frameworks (NumPy, SciPy, scikit-learn, XGBoost) to predict disease risk more accurately than any singular algorithm.
- Uncovered 18 transcriptomic biomarkers highly significant in the cardiovascular diseased population, with 3 novel in global research, used to predict disease with up to 96% accuracy.

LEADERSHIP

HackPrinceton | *Director*　　　　　　　　　　　　　　　　　　September 2024 – Present
- Directing a 40-person organizing team across 5 subteams in hosting biannual hackathons of 600+ participants.
- Led the Fall 2025 event, achieving the largest attendance of any Ivy League hackathon in recent history.
- Raised and managed a budget of $80,000+ per event from industry sponsors, including OpenAI, Y Combinator, and Amazon, to fund event logistics, participant resources, marketing initiatives, and prize offerings.

Algorithms & Data Structures | *Teaching Assistant*　　　　　　　　　　September 2024 – Present
- Guide students to debug projects for class of 200+ students and help create new class material and assignments.
- Host theory review office hours to help students with course material.

Bid | *Founder, CTO*　　　　　　　　　　　　　　　　　　September 2024 – March 2025
- Founded a tech startup company building a gamified college marketplace mobile app for everyday errands.
- Built a React Native mobile app demo with a flask backend supporting a custom-tailored errand recommendation algorithm and robust MongoDB NoSQL database along with one recruited developer.
- Received investment offers of $20,000 and $15,000 based on initial full-stack demo presentation.

PROJECTS

Internship Tracker Chrome Extension　　　　　　　　　　　　　June 2024 – September 2024
- Designed an extension that passively tracks all a user's internship/job applications through their emails.
- Leveraged a 96% accurate custom machine learning model to classify incoming emails as internship related.
- Applied OpenAI client for email entity recognition to update MongoDB database with correct internship status.

HackPrinceton Application Website　　　　　　　　　　　　　　March 2024 – August 2024
- Initiated the rewrite of a full-stack application site for an international hackathon with 2,200+ annual applicants.
- Designed and implemented a new backend architecture including a REST API, NoSQL database management, data security with JWT Authentication, mail servers, and in-app admin management and analysis features.

SKILLS

Programming Languages: Python, Java, C, C++, JavaScript/TypeScript, SQL, ARMv8 Assembly, Go/Golang
Frameworks: NumPy, SciPy, scikit-learn, XGBoost, SHAP, Pandas, TensorFlow, PyTorch
Developer Tools: Git, Docker, Kubernetes, Unix/Shell, Jenkins, Jira, Postman, Relational Databases (SQL)