Jainam Shah

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Education

New Jersey Institute of Technology (Albert Dorman Honors College)   September 2023 – May 2026
Bachelor of Science in Computer Science, minor in Mathematics   *Newark, NJ*
- **GPA:** 3.91/4.0
- **Awards:** Full tuition Honors Merit Scholarship, Dean's List, 2024 PennApps(XXV) Participation, GirlHacks Participation
- **Coursework:** Probability and Statistics, Data Structures & Algorithms, Discrete Math, Compiler Design, Web Development, Introduction to Generative AI, Intensive Programming in Linux, Database Management, Multivariable Calculus, Physics III, Linear Algebra, Data Science

Skills and Certifications

Softwares: Anaconda, WSL, LaTex, Xampp, Minitab, Git, Visual Studios, Postman, Jira, Jupyter Notebooks, Docker, OpenEHR, GraphQL
Soft Skills: Problem-solving, Team management, Public speaking, Adaptability, Agility, Avid learning, Innovative, Proactive
Technical Skills: Python, Java, C++, HTML, CSS, JavaScript, jQuery, SQL, PHP, Matlab, Linux, Golang, Postgres, ScyllaDB
Tech Familiarities: Numpy, Pandas, Matplotlib, Scikit-learn, SciPy, Django, Data Analysis, Agile software development, Scrum framework
Certifications: Intro to C++ (IBM), Cyber Security Boot Camp (Stetson University), Intro to Matlab (MathWorks), ML with Python (IBM)

Professional Experience

Big Data Analytics Laboratory / Office of Naval Research   February 2024 – Present
Data Science Intern / Honors Research Fellow and Grant Recipient   *Newark, NJ*
- Utilized Machine Learning and Data Science skills to help the US NAVY predict ship maintenance delays and optimize resource allocation
- Enhanced model accuracy by **80%**, reducing predictive errors to **14 days** and saving the U.S. Navy over **$1 billion** in financial costs
- Analyzed over **15k** obfuscated classified features, providing data-driven recommendations on model functionality for U.S. Navy officials
- Improved model generalization and reduced overfitting by **20%**, while increasing accuracy by an additional **10%** through a custom algorithm harmonizing ML output

Tech for Good Inc.   July 2024 – September 2024
Software Engineering Intern   *Boston, MA*
- Engineered an Electronic Medical Records (EMR) system using **Golang** to digitize patient records for enhanced accessibility in rural areas
- Created a ScyllaDB database with over **5,000** data points to store patient information, including medical history, visits, and biographic details, and used GraphQL to query data via API endpoints
- Followed openEHR standards to build a robust EHR platform, initially deployed in Tanzanian hospitals with potential for further expansion
- Implemented Docker to ensure consistent database and language schemas across local machines for all team members

Structural Analysis of Biomedical Ontologies Center (SABOC)   January 2024 – May 2024
Data Science Intern for Bioinformatics Ph.D. Candidate   *Newark, NJ*
- Extract combinations of over **37 million** citations from the PubMed database to identify different **Social Determinants of Health (SDoH)**
- Employed NumPy and Pandas to filter text file redundancies and create a unique list SDoH, increasing the ontology by **15%**
- Harnessed **Unified Medical Language System (UMLS) API** to gather over **20,000** synonyms for existing subject/predicate combinations from **over 12** SemMed Databases, enlarging the ontology by incorporating semantically similar matches

Projects *(other projects are located on GitHub)*

Simple Fortran 95-like compiler - *C++*
- Built a compiler (lexical analyzer, parser, and interpreter) to read and understand a Simple Fortran 95-like language

Stock-Market Analyzer - *Django, HTML, Twelvedata-API, SQLite*
- Developed a user-specific portfolio with **Django** for stock management and real-time fictitious transactions.
- Queried **SQLite** to efficiently display user stock holdings and financial data with dynamic updates.
- Integrated **Twelvedata API** for real-time stock prices, historical price graphs, and secure access with robust authentication.

WasteFree - *Kvlang, Python, SQLite, Mindee-API, Beautiful Soup, Bcrypt*
- Developed a pantry page using **Kvlang** to track expiration dates and notify users of expiring items to reduce food waste.
- Built an interactive recipe finder integrating **Beautiful Soup** and **Kvlang**, curating recipes based on expiring ingredients and user feedback.
- Implemented **Mindee API** to scan grocery receipts, extracting item details for automated pantry management and final user confirmation.

GrooveSync - *React.js, Express.js, Node.js, MongoDB, Spotify API, Anthropic Claude Ai API*
- Built a responsive, disco-themed UI with **React.js** and a backend using **Node.js/Express.js** and **MongoDB** Atlas for data handling.
- Integrated the **Spotify Web API** with **OAuth** for secure music playback and playlist management within the app.
- Developed **DiscoAI with Claude AI**, providing real-time insights into disco history, artists, and cultural moments.
- Powered an interactive choose-your-own-adventure game using **Claude AI and React**, generating dynamic narrative choices for users.

Activities & Leadership Experience

Investment Fund - *Junior Analyst*   December 2023 - Present
- Conducted DCF analyses for Fortune 500 companies to assess financial health and investment potential, incorporating industry trends

Bergen County Debate Club - *Coach*   September 2021 - Present
- Assisted over **500 nationally-ranked debaters** in preparing for tournaments at **Georgetown, Harvard, and Stanford**, while handling administrative tasks such as **topic research, case preparation**, and **public speaking drills for students aged 11-18**