Keeyon Hajjafar

United States citizen authorized to work without restrictions.
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Education

Northeastern University – Khoury College, Boston, MA Sep 2023 – May 2026
MS in Computer Science ALIGN Program, GPA: 3.9 / 4.0
Coursework: Foundations of AI, Discrete Structures, Computer Systems, Database Management, Object-Oriented Design, Algorithms

Case Western Reserve University – College of Engineering, Cleveland, OH Aug 2017 – May 2021
BS in Mechanical Engineering
Coursework: Introduction to Java, Statistics and using R, Computers in Mechanical Engineering, Controls Engineering

Projects – Link to more project details

Doodle Dall-E — 1st place in Aesthetics at MakeHarvard 2025 Feb 2025
- A 3D printer caricature robot that captures the subject, generates a caricature, and autonomously draws it in 8 minutes.
- Image processing pipeline from PNG to GCODE using tools such as OpenCV and OpenAI on a Python-based system.
- Challenges include system limitations of a raspberry pi when trying to integrate all parts together.

News Crossword Puzzle — Weekly generated crossword puzzle from news headlines Sep 2024 – Present
- Used JavaScript to design a flow to retrieve keywords and hints from top headlines using The News API and Gemini.
- Developed an algorithm to generate the crossword puzzle from collected keywords for play.
- Implemented React for the frontend, Node.js and MongoDB for the backend, with deployment planned on AWS.

Clinical Trial Chatbot — User-friendly clinical trial analysis tool Nov 2024 – Jan 2025
- Designed a Python backend to provide analysis on clinical trial data from natural language.
- Implemented tools such as Clinical Trials API and AI to create a pipeline for querying data and presenting results.

Stock Market Predictor — Multi-model single-stock predictor in Python Feb 2024 – May 2024
- Achieved trend predictions with 44% accuracy using Markov Modeling and Reinforcement Learning.
- Trained models with data from Google Trends and Alpha Vantage API to enhance transfer learning.

Experience

UKG — Lowell, MA Sep 2025 – Dec 2025
Software Engineering Intern
- Optimized dashboard data collection automation by 20% through algorithm optimization for hardware data collection, utilizing Jenkins and Git for continuous integration and version control.
- Developed a full-stack information dashboard using Python and JavaScript to visualize current and historical data via website and automated daily email reports through cron jobs for hardware team accessibility.
- Collaborated with cross-functional team using Jira and Confluence to test latest time clock software and hardware, managing large-scale data collection efforts.

International Health Strategies — Boston, MA Jan 2025 – Aug 2025
Software Engineering Spring Intern
- Built clinical trials website with various APIs and web tools managing over 500,000 trials, improving search speeds by 25%.
- Designed and implemented full-stack social media platform backend using Django and AWS, featuring real-time instant messaging, friend connections, and channels with scalable architecture supporting concurrent multi-user interactions.
- Developed user-facing tools including AI chatbot and machine learning models to enhance clinical trial data accessibility and user experience in fast-paced startup environment.

Northeastern University — Boston, MA May 2024 – July 2025
Machine Learning Research Assistant at Transformative Robotics Lab
- Conducting research on path planning using deep neural networks, leveraging Python, MATLAB, and motion capture.
- Improving robot's performance of torque applied tasks in complex geometries with forces over 100% previously achieved.
- Enhancing positional accuracy by 97.5% through the integration of AprilTags, OpenCV, and motion capture technologies.

Northeastern University — Boston, MA Jan 2024 – May 2025
Teaching Assistant for Algorithms and Java: Object-Oriented Design
- Providing supplementary material and teach recitations for two courses: Algorithms and Object Oriented Design.
- Managing grading, office hours, and one-on-one tutoring for classes of up to 350 students.

Skills & More

Languages (Proficient): Python, Java, C, MATLAB, R, HTML, SQL, XML, CSS, JavaScript
Tools: Git, GitHub, Jenkins, Jira, Django, AWS, OpenCV, PyTorch, NumPy, React, mySQL, JUnit, Cron, UML, ERD, LaTeX
Engineering: Certified SolidWorks Professional (CSWP), Lab Management Systems (LIMS), CAD and Vector Software
Interests: Sailing on the Charles, Portrait Photography, Hiking, Running (I am training for my first half marathon!)