Shrey Joshi

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Education

- **University of Texas at Dallas** — Richardson, TX
  B.S. Computer Science: CS^2 Honors, National Merit & Collegium V Scholar — *Expected Grad: 2025*
  - **Relevant Coursework:** Data Structures & Algorithms, C/C++ in UNIX, Computer Arch, Operating Systems
  - **Clubs & Activities:** Blackstone LaunchPad, Association for Computing Machinery

Experience

- **Minion AI** — Remote
  Software Engineer — *Jan 2023 - Present*
  - Building web infrastructure for LLMs, led by Alex Graveley and advised by Nat Friedman (Former CEO @ Github)
  - Built an anything-to-text API for LLMs and currently working on tooling for rigorous prompt engineering
  - Used: Python, Playwright, Fastapi, Modal
- **Boston University** — Boston, MA
  Machine Learning Research Intern — *June 2022 - Aug 2022*
  - Worked with NASA SERVIR applied science team to propose transformer (computer vision) and LSTM (time-series) models for estimating crop yield in West Africa using multi-spectral satellite (Landsat8) data
  - Used: Python, PyTorch, OpenCV, Matlab, Scikit-Learn, AWS EC2 P3, Docker
- **University of Texas at Austin [Github] [Poster] [Publication]** — Remote
  Machine Learning Researcher — *Aug 2020 - April 2022*
  - Built a system for ML-driven landslide analytics & prediction based on real-time multi-spectral satellite data, processing 350GB+ of global geophysical data using PCA, Random Forests, Support Vector Machines, and LSTMs
  - Presented & published research paper at the 2021 IEEE MIT URTC Conference
  - Acquired $10,000 in research funding from NatGeo and US Agency for International Development (USAID)
  - Used: Python, PyTorch, GCP, Docker
- **Grassroots Democrats HQ** — Remote
  Full Stack Developer — *June 2020 - Apr 2021*
  - Sole full-stack developer for organization of 450 volunteers (grassrootsdems.org)
  - Clustered voter personas from openFEC API to intelligently distribute 600,000 postcards around the USA
  - Built portal system for volunteer hour logging and automated texting system for daily shift reminders
  - Used: Scikit-Learn, Django, React, MongoDB, Node

Projects

- **PairProgram.app [Demo]**
  - Easy and minimalistic collaborative code editing in the browser. 300+ daily users at peak.
  - Used: React, Node, Express
- **RetnoScan [Github]**
  - Transfer learning + MobileNet CNN to detect eye fundus abnormalities from your smartphone camera
  - Used: Android Studio, TensorFlow/Keras
- **BirdWatch [Github]**
  - A mobile app that uses a ResNet CNN to identify species of birds and collects image/location data in a dashboard
  - Used: Android Studio, TensorFlow/Keras, React, Firebase RTDB
- **Chess Engine [Github] [Demo]**
  - A simple JavaScript chess engine employing minimax and alpha-beta pruning

Honors and Awards

- **Regeneron International Science & Engineering Fair:** 2021 Best-of-Category (Top 22 of 7M Competitors); 3x Grand/Special Award Winner; Cumulative $10,000 won
- **IEEE MIT URTC [Paper]:** Presented & published computational landslide analytics paper at 2021 virtual conference
- **HackRice:** 2nd overall of 283 HS/undergrad teams + Data2Knowledge Labs Challenge winner; $3000 cumulative in prizes (4 electric scooters & Apple Airpod Pros)

Skills

- **Languages:** Python, Java, C# Objective C, C++, HTML/CSS, JavaScript, Rust, Bash, LaTeX, Swift, SQL
- **Tools/Libraries:** PyTorch, TensorFlow/Keras, React, Node, Flask, Jupyter, EarthEngine, Unity, Firebase, Git, R
- **Miscellaneous:** Unix, Excel, JIRA, AWS