Shrey Joshi

Website: shreyjoshi.com
Phone: +1 (972)-979-0673

Email: shreyjoshi2004@gmail.com
LinkedIn: in/sjoshi1729
GitHub: @shreyj1729

EDUCATION

- **University of Texas at Dallas** Richardson, TX
  B.S. Computer Science: CS^2 Honors, National Merit & Collegium V Scholar *Fall 2022 - Spring 2025*
  - ○ **Relevant Coursework:** Data Structures & Algorithms, C/C++ in UNIX, Computer Arch, Operating Systems
  - ○ **Organizations:** Association for Computing Machinery, AI Society, Kappa Theta Pi

EXPERIENCE

- **Minion AI** Remote
  Software Engineer (Contractor) *Jan 2023 - Feb 2023*
  - ○ Built web infrastructure for LLMs (subject to NDA), led by Alex Graveley and advised by Nat Friedman
  - ○ Built a parallelized webcrawler and anything-to-text API for 25+ different filetypes.
  - ○ Used: Python, Playwright, Fastapi, Modal
- **Boston University** Boston, MA
  Machine Learning Research Intern *Jun 2022 - Aug 2022*
  - ○ Worked with NASA SERVIR applied science team to propose vision transformers 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 - Apr 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
  - ○ Acquired $10,000 in research funding from NatGeo and US Agency for International Development (USAID)
  - ○ Used: Python, PyTorch, GCP, Docker

PROJECTS

- **BioConceptXplorer [Github] [Slide Deck]**
  - ○ Used vector embeddings of proteins/genes/chemicals from scientific literature (30 million PubMed papers) to explore and test undocumented molecular interactions at scale. Codon Digest Winner @[hackathon.bio]
  - ○ Used: Python, FastAPI, React, Scikit-learn, Streamlit
- **PairProgram.app [Github] [Demo]**
  - ○ Minimalistic real-time collaborative code editing in the browser using websockets, operational transformation, and the monaco editor. Supports linting for 42 languages and list of active users.
  - ○ Used: React, Node, Express
- **BirdWatch [Github][Demo]**
  - ○ Used transfer learning on a ResNet CNN (deployed on a mobile app) to identify 100+ bird species from a smartphone camera with 95%+ accuracy. Built a dashboard to visualize image/location data.
  - ○ Used: Android Studio, TensorFlow/Keras, React, Firebase RTDB
- **Rusty [Github]**
  - ○ A blazing-fast chess (& anti-chess) engine built using magic bitboards. 4M moves/second single-threaded.

HONORS AND AWARDS

- **Regeneron International Science & Engineering Fair:** 2021 1st-in-Category (Top 26 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 [Github] [Devpost] [Rice D2K Article]:** 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++, HTML/CSS/JS, Rust, Bash, LaTeX, SQL
- **Tools/Libraries:** PyTorch, TensorFlow/Keras, React, Node, Flask, Jupyter, EarthEngine, Unity, Firebase, Git
- **Miscellaneous:** Unix, Excel, AWS