Shrey Joshi

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# EDUCATION

• University of Texas at Dallas

Richardson, TX

B.S. Computer Science: CS<sup>2</sup> Honors, National Merit & Collegium V Scholar

Expected Graduation: 2025

- Relevant Coursework: DS & Algorithms, C/C++ in UNIX, Computer Architecture, Linear Algebra
- o Clubs & Activities: Association for Computing Machinery, AI Society, Dallas Formula Racing

## EXPERIENCE

• Boston University

Boston, MA

June 2022 - Aug 2022 (Expected)

ML Researcher Analyzing large-scale satellite imagery data using machine learning

• GLAS: A Global Landslide Analytics System [Github] [Poster] [Publication]

Remote

Researcher at UT-Austin

Aug 2020 - Present

- Processes geophysical/climate data using Random Forests to issue landslide alerts (Exceeded SOTA by 15%)
- Presented at the 2021 IEEE MIT URTC Conference & 2021 Regeneron ISEF [Presentation]
- Acquired \$10,000 in research funding from National Geographic and US Agency for International Development

Association for Young Scientists & Innovators Summer Camp Director

Dallas, TX

June 2020 - Present

- o 2022 Summer Coding Institute: Creating new AI & CS curriculum and directing hybrid virtual/in-person programming camp with 200 MS/HS students and 30 instructors.
- o 2021 Science Fair Academy: Delivered lectures on science research and provided 1-on-1 mentorship.

Grassroots Democrats HQ [Github]

Remote

Software Developer

June 2020 - Apr 2021

- Sole developer for organization of 450 volunteers (grassrootsdems.org)
- Automated distribution of 600,000 postcards, scripts & addresses to volunteers around the USA

JusticeCoin [Github]

Remote

Dev Team Lead

June 2020 - Jan 2021

- o Turns your computer's processing power into charitable donations using decentralized cryptomining
- Lead developer on team of 2 others building website and native desktop app
- Led to \$2,200 donated through mining, grants, and competitions

# Projects

- Rusty [Github] [Demo] A chess engine written in Rust (demo ported to WebAssembly) featuring efficient bitboard representation, alpha-beta searching, transposition tables, & advanced move-ordering (MVV-LVA). Used: Rust, WebAssembly, HTML/CSS/JS
- BirdWatch [Github] Mobile app that uses a ResNet CNN to identify species of birds and collects image/location data in a dashboard. Used: Android Studio, TF/Keras, React, Firebase RTDB
- RetnoScan [Github] Mobile app that uses transfer learning with a MobileNet CNN to classify eye fundus abnormalities (Diabetic Retinopathy). Used: Android Studio, TF/Keras

# Selected Honors and Awards

- Regeneron ISEF: 2021 Best-of-Category (Top 26 of 7M); 3x Grand/Special awards; Total \$10,000 won
- IEEE MIT URTC: 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)

- Languages: Python, HTML/CSS/JS, TypeScript, Rust, Bash, LATEX, Java, C# (intro) C/C++ (intro)
- Tools/Libraries: PyTorch, TensorFlow/Keras, React, Node, Flask, Jupyter, EarthEngine, Unity, Firebase, Git
- Miscellaneous: Linux, Excel, Guitar