

# Shrey Joshi

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GitHub: [@shreyj1729](https://github.com/shreyj1729)

## EDUCATION

- **University of Texas at Dallas** Richardson, TX  
*B.S. Computer Science: CS<sup>2</sup> Honors, National Merit & Collegium V Scholar* *Expected Grad: 2025*
  - **Relevant Coursework:** DS/Algo, C/C++ UNIX Programming, Computer Architecture, Linear Algebra
  - **Clubs & Activities:** Association for Computing Machinery (ACM), AI Society, Dallas Formula Racing

## EXPERIENCE

- **Boston University** Boston, MA  
*Machine Learning Engineer* *June 2022 - Aug 2022 (Expected)*
  - Working with Dr. Woodcock and NASA SERVIR Applied Science Team to propose new transformer and LSTM time-series models to estimate crop yield in West Africa using Landsat satellite data
- **University of Texas at Austin [Github] [Poster] [Publication]** Remote  
*Earth Science ML Researcher* *Aug 2020 - Present*
  - Processed 250GB of global geophysical & climate data with Random Forests for landslide analytics/risk analysis
  - Developed & documented multi-threaded Python API to process raw sensor-acquired geologic data into Digital Elevation Models (DEMs) and lithological shapefiles (API now used throughout UT geoscience department)
  - 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)
- **Association for Young Scientists & Innovators (aysi.org)** Dallas, TX  
*Summer Camp Director* *June 2020 - Present*
  - Created new AI & CS curriculum and directing hybrid virtual/in-person programming camp (2022 Summer Coding Institute) with 200 HS students and 30 instructors
  - Delivered lectures on science research and provided 1-on-1 mentorship for 2021 Science Fair Academy
- **Grassroots Democrats HQ [Github]** Remote  
*Full Stack Developer* *June 2020 - Apr 2021*
  - Sole full-stack developer for organization of 450 volunteers (grassrootsdems.org)
  - Created portal system to using Django, React, & MongoDB to automate the distribution of 600,000 postcards, scripts & addresses to volunteers around the USA, saving hundreds of man-hours in manual emailing
- **JusticeCoin [Github]** Remote  
*Dev Team Lead* *June 2020 - Jan 2021*
  - 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

- **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)

## SKILLS

- **Languages:** Python, Java, C# Objective C, C++, HTML/CSS, JavaScript, Rust, Bash,  $\text{\LaTeX}$ , Swift
- **Tools/Libraries:** PyTorch, TensorFlow/Keras, React, Node, Flask, Jupyter, EarthEngine, Unity, Firebase, Git
- **Miscellaneous:** Unix, Excel