SHREY JOSHI

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EDUCATION

University of Texas at Dallas Richardson, TX
B.S. Mathematics: National Merit Scholarship (Full Ride) *May 2028*

- **Coursework:** Abstract Algebra, Data Structures & Algorithms, C/C++ in Unix

EXPERIENCE

PwC Jun 2024 - Aug 2024
Software Engineering Intern *Austin, TX*

- Developed an internal settings dashboard in Angular; deployed to ∼120 apps, 20k+ users, and 1k+ microservices
- Contributed to RESTful API in .NET to sync frontend with MongoDB database through Azure microservices

Minion AI Jan 2023 - Feb 2023
Software Engineer *Remote*

- Built anything-to-text API across 20 different file types to feed into LLM-based browser automation assistant
- Developed web crawler using above API to collect LLM training data; bench-marked it on 50+ domains

PROJECTS

Global Landslide Analytics System | [Publication] Aug 2020 – April 2022

- Compiled novel Global Landslide Incidents and Features (GLIF) dataset by processing ∼200GB of geophysical data across 6 data sources using Google EarthEngine, GDAL and ArcGIS
- Trained Random Forest models on GLIF for landslide analytics with 86.3% binary and 72.6% categorical (severity) accuracy; generated static global susceptibility map from RF feature importances
- Presented & published paper at the 2021 IEEE MIT URTC Conference

TermCall | Github Jan 2024 – Present

- Developed FaceTime clone in Rust with WebRTC audio/video and ASCII/SIXEL graphics (<100ms latency, 30+ fps)
- Implemented WebRTC session description exchange over Firebase Realtime Database

ClipTranslator | Github Nov 2023 – June 2024

- Wrote Python scripts chaining ElevenLabs API and Wav2Lip to automatically dubb and lip-sync videos from/to any of 29 languages; deployed scripts as web endpoints on Modal Labs

Rusty Chess Engine | Github Mar 2023 – June 2024

- Blazing-fast WIP chess engine built from scratch in pure Rust (4M moves/s single-threaded)
- Implemented magic bitboards (efficient board representation) and created perft testing suite of 43 unique cases

BioConceptXplorer | Github Jun 2023

- Used pre-trained vector embeddings of proteins/genes/chemicals from 30 million PubMed papers to explore undocumented molecular interactions at scale; Codon Digest winner at Bio X ML Hackathon

HONORS & AWARDS

Regeneron International Science & Engineering Fair [Abstract]: 2021 1st-in-Category (Top 26 of 7M Competitors); USAID Science for Development First Award; Cumulative $10,000 won

HackHarvard [Devpost]: 2023 BGB Group (Alzheimer's Challenge) Winner

HackRice [2023 Devpost] [2020 Devpost] [Press Release]: 2023 Chevron (Carbon Capture) Challenge Winner; 2020 2nd overall + D2K Challenge Winner; Cumulative $5,000 won

TECHNICAL SKILLS

Languages: Python, Rust, HTML/CSS/JavaScript, TypeScript, Java, C/C++, C#, Bash, SQL
Developer Tools: Git, Docker, Azure DevOps, Postman, Modal Labs, Unity, Firebase
Libraries/Frameworks: React, Angular, Node.js, OpenCV, TensorFlow/Keras, PyTorch