SHREY JOSHI

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EDUCATION

University of Texas at Dallas   Richardson, TX
B.S. Computer Science: AES (Full Ride) & National Merit Scholar   *Fall 2022 – Spring 2026*
- **Coursework:** Adv Data Structures & Algorithms, C/C++ in Unix, Computer Architecture

EXPERIENCE

PwC   Jun 2024 - Aug 2024
Software Engineering Intern   *Austin, TX*
- Created and deployed configuration settings frontend (Angular) for an internal code automation tool used by ~120+ apps and 20k+ users firm-wide; synced GUI data with Azure micro-services

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
- Deployed and bench-marked web crawler (using above API) on 50+ domains to collect LLM training data

University of Texas at Austin   Aug 2020 - April 2022
Machine Learning Researcher   *Remote*
- Compiled first-of-its-kind 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) prediction accuracy; generated static global susceptibility map from RF feature importances
- Presented & published paper at the 2021 IEEE MIT URTC Conference

PROJECTS

TermCall | *Rust, WebRTC, LibSIXEL, Firebase RTDB*   Jan 2024 – Present
 github.com/ShreyJ1729/termcall
- Developed in-terminal FaceTime clone using WebRTC audio/video and ASCII graphics ($<$100ms latency, ~30 fps)
- Created, labeled, and prioritized active feature list of 23+ issues; tracking progress/bugs with Github projects

ClipTranslator | *Python, Modal Labs, Wav2Lip, ElevenLabs*   Nov 2023 – June 2024
 github.com/ShreyJ1729/cliptranslator
- Used ElevenLabs API and Wav2Lip in series to dubb and lip-sync videos from/to any of 29 languages
- Tested 2 lip-syncing models (Video-Retalking and Wav2Lip) and deployed web endpoints on Modal Labs

Rusty Chess Engine | *Rust*   Mar 2023 – June 2024
 github.com/ShreyJ1729/rusty-chess-engine
- Blazing-fast WIP chess engine built from scratch in pure Rust (4M moves/s single-threaded)
- Used magic bitboards for efficient board representation and perft (performance) testing suite of 43 unique cases

BioConceptXplorer | *Python, React, Streamlit, Scikit-learn*   Jun 2023
 github.com/Cognition-Labs/BioConceptXplorer
- Used pre-trained vector embeddings of proteins/genes/chemicals from 30 million PubMed papers to explore and test undocumented molecular interactions at scale; Codon Digest winner at Bio X ML Hackathon (hackathon.bio)

PairProgram | *React, Node, WebSockets, Heroku*   Dec 2022 – Jan 2023
 github.com/pairprogram-app/ | ⌂ pairprogram-app.github.io/
- Fullstack app for in-browser pair programming with linting for 42 languages and list of active users
- Implemented operational transformation over WebSockets for real-time multi-user editing ($<$50ms latency)

TECHNICAL SKILLS

Languages: Java, Python, Rust, C/C++ (intro), HTML/CSS/JavaScript, Bash, SQL
Developer Tools: Git, Docker, VS Code, Azure DevOps, Postman, Modal Labs, Unity
Libraries/Frameworks: React, Angular, Node, OpenCV, TensorFlow/Keras, PyTorch, Scikit-Learn, MongoDB