

Shrey Jain

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EXPERIENCE

Research

Apr 2025 - Present

Broad Institute of MIT and Harvard

- Architected and implemented a deterministic, gradient-free explainability pipeline for Phyla by extracting each Mamba SSM kernel and CLS-attention vector and composing them into a closed-form per-residue attribution map.
- Built normalization and visualization modules to convert raw attribution scores into interpretable bar charts and structure-mapped overlays, revealing evolutionarily and functionally significant motifs.
- Packaged the entire workflow into a reproducible codebase and methodological framework, ready for workshop presentations and submission to peer-reviewed venues.

VerbaAI - AI Communication Platform

Feb 2025 - Present

Founder and Lead Developer

- Developed a full-stack web application using React, Node.js, and Express that transcribes voice input via Whisper API and transforms it into context-aware emails using GPT-4
- Architected a modular service layer to enable scalable extensions, including Slack message formatting, Gmail API automation, and multilingual output using dynamic prompt chaining
- Implemented personalized tone customization with user-defined metadata and session-based memory, allowing adaptive communication styles across enterprise use cases

MindMesh – AI-Powered Mind Mapping & Note Intelligence Platform

June 2024 - Present

Founder & Lead iOS Developer

- Built a SwiftUI-based iOS app leveraging MVVM architecture, Combine, and Core Data to generate and manage dynamic, interactive mind maps from unstructured notes
- Integrated GPT-4 for semantic parsing and structured mind map generation, and used Firebase (Auth, Firestore, Cloud Storage) for real-time sync and user state persistence
- Engineered extensible API layers for future integration of Whisper (voice input), Google Calendar sync, and multilingual support, with modular service abstraction and async/await concurrency

LEADERSHIP & INVOLVEMENT

Research Club Co-President

Dec 2023 - May 2024

Guiding students through the research process and aiding in the International Research Olympiad

- Empowering students to discover & deepen their understanding of scientific research
- Successfully organized numerous meetings to maintain high member commitment
- Brought guest speakers with experience from ISEF & Harvard

Varsity Basketball

Present

Rising sophomore on Varsity

- Competing in national tournaments in around the country
- Averaging ~15 points per game, ~5 assists, ~5 rebounds

SKILLS, ACCOLADES, COURSEWORK & INTERESTS

Skills: Computational Biology, App Development, Literature Review, Laboratory Experience, NumPy, Data Analysis, Scientific Design, Scientific Writing, Java, Python, PyTorch, Collaboration

Accolades: Valedictorian (1 out of ~500), International Research Olympiad Semifinalist (Top 10% of 4500), International Biology Bowl Semifinalist (32 of ~1000), Male Student of the Year (1 of ~300), Male Basketball Player of the Year, Male Gifted and Talented Award (1 of ~100), AMC 8 Honor Roll (Top 1.5% of 300,000), 2nd Place WiproXUNT Science Fair (of ~30), USACO Silver, 6th Place General Science @ TMSCA (of ~60), Top 12 National Biology Bowl (of ~60), Best of Texas Top 3 (of ~150), Top 5 North South Foundation Senior Science Bee (of ~40), Provisional Patent Holder, The Harvard Undergraduate Research Journal Finalist

Relevant Coursework: AP Biology, Python Programming & Implementation in AI (Coursera), CS50 (edX), Algebra 2, Pre-Calculus, AP Calculus

Interests: Competitive Math, Basketball, Extemporaneous Speaking, Sketching, Bollywood Dance, Piano, Stocks, Percussion