

Soham Jain

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Education

Carnegie Mellon University

B.S. in Computer Science, School of Computer Science

Pittsburgh, PA

Aug 2024 – May 2028

Thomas Jefferson High School for Science and Technology

4.0/4.0 Unweighted GPA, 4.535 Weighted GPA

Alexandria, VA

Aug 2020 – June 2024

Experience

Machine Learning and Software Engineer — Vytal.AI

May 2022 – June 2025

- Developed NeuROS, a smartphone AI application quantifying brain health using novel gaze-tracking algorithms
- Designed scalable business model, securing \$1.2M in seed investments (\$12.5M valuation)

Computer Science and Quantum Computing Researcher — Virginia Tech

April 2024 – June 2025

- Led undergraduate research team with Dr. Atul Mantri on graph coloring with Grover's Algorithm
- Conducted literature reviews to identify gaps in contemporary quantum computing research

Projects

RoutineRemind — Congressional App Challenge Winner

June 2022 – Present

- Developed provisional patented scheduling app for individuals with speech and cognitive disabilities
- Deployed on Google Play and App Store; selected by U.S. Representative Jennifer Wexton

EyeLS — IEEE Technical Excellence Award (3/400+ projects)

August 2023 – Present

- Built gaze-tracking web app for ALS patients using Kalman Filtering and Monte Carlo algorithms

President & Co-Founder — Youth International Digambar Jain Organization

February 2022 – Present

- Raised over \$25,000 for constructing a Jain temple in Virginia; manage organization website

Research & Publications

LapseNet: A Hybrid CNN-LSTM Approach for Vision-Based Fall Detection — IEEE Conference

First-author publication. Best Presentation Award at 6th International Conference on Robotics and Computer Vision

RexDash: Dashboard for Replica Exchange Molecular Dynamics Simulations — JSSR

First-author publication with Dr. Christopher Lockhart at George Mason University

Transformer-Based ALS Diagnosis via EEG Analysis — IEEE ICACTE

First-author paper on diagnosing ALS in two minutes. Oral presentation at 17th International Conference

ConVox: Deep Learning for Voice Disorder Detection — IEEE IC-BAIE

First-author paper. Multilingual voice disorder detection model accepted at 5th International Conference

Honors & Awards

Congressional App Challenge Winner (VA-10) — Meta Hacker Cup Round 2 Qualifier (Top 10% of 20,000+) — 5x Devpost Hackathon Winner — IEEE Technical Excellence Award — IEEE Best Presentation Award

Technical Skills

Languages: Python, Java, JavaScript, TypeScript, C++, C, SQL, R, MATLAB, HTML/CSS

Frameworks & Tools: React, React Native, Node.js, MongoDB, Firebase, TensorFlow, PyTorch, Keras, Scikit-learn, Pandas, Git, Google Cloud