# **Soham Jain**

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#### **Education**

#### **Carnegie Mellon University**

December 2027

Alexandria, Virginia

Blacksburg, Virginia

Bachelor of Science in Computer Science

Pittsburgh, Pennsylvania

- Concentration: Machine Learning
- **Relevant Courses:** Data Structures and Algorithms, Artificial Intelligence, Applied Machine Learning, Discrete Math, Linear Algebra, Multivariable Calculus, Computer Vision, Mobile & Web Application Development, Research Statistics, Physics, Biology, Psychology

#### **Technical Skills**

Languages: Python, Java, C++, C/C0, JavaScript, SQL, HTML/CSS, TypeScript, Q#, LaTeX

**Developer Tools:** Git, Vim, VS Code, MongoDB, Google Cloud, AWS, Azure, Firebase, Jira, Android Studio, Jupyter Notebook, Figma **Libraries & Frameworks:** React, Node.js, Next.js, Flask, PostgreSQL, NumPy, Pandas, TensorFlow, PyTorch, Keras, Scikit-learn, OpenCV

# **Experience**

Vytal.AI May 2022 – June 2025

Machine Learning and Software Engineer

- Developed 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)

Virginia Tech April 2024 – May 2025

Computer Science and Quantum Computing Researcher

- 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

# **Proiects**

RoutineRemind 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

CMUEats Aug 2025 – Present

Something

#### **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

 $\textbf{RexDash: Dashboard for Replica Exchange Molecular Dynamics Simulations} \ | \ \texttt{JSSR}$ 

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

# Leadership

Organization Name Date - Present

Leadership Role

- Leadership achievement or responsibility
- Leadership achievement or responsibility