

Vedavyas Mallela

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EDUCATION

Georgia Institute of Technology

Bachelor of Science, Computer Science

Atlanta, GA

Expected May 2025

- GPA: 3.5
- Intelligence and Theory Threads
- Clubs: Data Science at GT, AI + Medicine Society
- Relevant Coursework: Data Structures and Algorithms, Design and Analysis of Algorithms, Introduction to Artificial Intelligence, Object-Oriented Programming

EXPERIENCE

Student Assistant

September 2022 - Present

College of Computing, Georgia Institute of Technology

Atlanta, GA

- Developing web tools to help Georgia Tech research students in the Future Computing Rogues Gallery VIP program. Working with researchers at CRNCH (The Center for Research into Novel Computing Hierarchies), a lab for high performance computing and experimental computing methods.

Research Intern

August 2020 - December 2022

MIT CSAIL

Cambridge, MA

- Optimized computer vision segmentation algorithms and software which help neuroscientists model brain structures and neurological pathologies.
- Worked on BrainPainter, a brain visualization software, at the Medical Computer Vision group with an international team of neuroscientists to develop our application to cater their needs. Maintain the project servers on the MIT.edu domain (brainpainter.csail.mit.edu)
- Created a 3D mouse brain visualization tool using the Blender graphics API and Harvard FreeSurfer. First authored research paper detailing the work we did there.

Research Intern

April 2021 - August 2022

Harvard University Visual Computing Group

Cambridge, MA

- Researched visual tree comparison for medical applications (In Vitro Fertilization datasets).
- Worked with d3.js visualization and python libraries to perform medical computations for comparing cell data. Worked on the project as a full stack developer and wrote all of the codebase.

Research Intern

May 2020 - March 2021

Stanford University Electrical Engineering Department

Stanford, CA

- First authored a journal publication which detailed our team's efforts. Built a website using Flask and implemented a pytorch based natural language processing model to validate and package news targeting the COVID-19 pandemic.
- Worked with figma and several visualization libraries to make a unique UI for our news application.

PROJECTS

BrainPainter | *Blender API, Docker, FreeSurfer, TKinter, Flask*

August 2020 – Present

- BrainPainter is a software for visualizing brain structures with biomarker data.
- Developed a novel volumetric rendering for mouse brain visualization.
- First authored paper outlining our research into developing volumetric meshes with the Blender API.

COVerage | *Pytorch, Flask, Numpy, Tweepy, Figma, REST API's*

May 2020 – March 2021

- COVerage is an AI powered news application that compiles local news regarding the COVID-19 pandemic
- First authored journal paper overviewing our novel news ranking system catered to the COVID-19 pandemic.
- Built a REST API so that other platforms at Stanford's computational journalism initiative could utilize our project's results. Worked with AWS Lambda.

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C++, C, HTML/CSS

Frameworks: Flask, Angular, Bootstrap

Developer Tools: Git, Figma, Postman, JUnit, CMake, Anaconda, VSCode, Docker, Firebase

Libraries: Numpy, Scipy, PyTorch, Blender, Node.JS, Piling.js