

MAHESH NATAMAI

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EDUCATION

Georgia Institute Of Technology
BS Computer Science *GPA: 4.0*

Expected Graduation: Dec 2024
Atlanta, GA

Relevant Coursework: CS 1332 - Data Structures And Algorithms

WORK EXPERIENCE

Brains 4 Drones

Computer Vision Intern

Jun 2021 - Sep 2021

Plano, TX

- Led project systematically testing novel keypoint detection/description algorithms for simultaneous localization and mapping (SLAM) on autonomous drones.
- **Increased accuracy of keypoint matching algorithm by 15%** by varying standard algorithm.
- Developed custom algorithm to efficiently select photos for drone camera calibration from 5-dimensional point cloud, **reducing calibration times by ~ 10-20 seconds**.
- Simulated drone hardware pipeline for keypoint descriptor experiments using python and jupyter notebooks. Vectorized implementations using numpy for a **>10x speedup**. Utilized Robot Operating System (ROS) to interface with collected bag data.

Fiverr

Discord Bot Developer

Nov 2020 - Jun 2021

Plano, TX

- Seller with over **18k impressions**, **30+ clients**, and a **5.0 star rating** for Node.js discord bot development.
- Integrated 3rd party APIs (twitch, hosting services, custom servers, etc.), using MongoDB and MySQL.

PROJECTS

Signify *Next.js, Python, Flask, Tensorflow*

<https://github.com/MaheshNat/Signify>

- Designed to enable members of the deaf and hard of hearing communities to communicate with those who do not understand ASL (American Sign Language) using machine learning.
- Leverages custom-trained convolutional neural network (CNN) built using Tensorflow to translate ASL.

Menter *MongoDB, Express.js, React.js, Node.js*

<https://github.com/MaheshNat/Menter>

- Architected during a hackathon as an education tool for skill bartering, i.e. allowing students to learn skills if they have something to teach in return.

Quick Maths *Angular, Firebase*

<https://github.com/MaheshNat/Quick-Maths>

- An education tool allowing our UIL Number Sense team to take practice tests online and monitor their progress through a leaderboard
- Reduced paper waste from printing out tests and made training easier for Number Sense team members. Utilized by 75% of the Number Sense team.

VOLUNTEERING/CLUBS

Bits Of Good

Fullstack Engineer

Aug 2022 - Present

Atlanta, GA

- Developing platform for nonprofit "Motherhood Beyond Bars" enabling incarcerated women to communicate with their children and receive necessary products. Using Next.js and Firebase.

SKILLS

| | |
|---------------------------|---|
| Programming Languages: | Python Java JavaScript TypeScript Node.js |
| Web Frameworks/Libraries: | React/Redux Next.js Angular Flask Express.js Firebase |
| Data Science: | Numpy Pandas Tensorflow Matplotlib OpenCV |
| Misc: | MongoDB MySQL PostgreSQL Agile Git Linux |

AWARDS

First place in the tech category, most voted

Jumpstart Edtech Hackathon

Won first place in the tech category and most voted out of 200 participants for my team's submission to the Jumpstart Edtech startup competition/hackathon: Menter

First place

Congressional App Challenge

Won first place for Signify, an app submitted to the congressional app challenge