

# Harsha Thottempudi

harsha.02k@gmail.com | linkedin.com/in/harshathottempudi | (470) 880-7185 | Atlanta, GA

## EDUCATION

**Georgia Institute of Technology** – *B.S Computer Science, Senior.*

Expected: May 2024

**Activities:** RDBMS, Data Structures & Algorithms, Statistics, Varsity Rowing Team.

GPA: 3.7

## SKILLS

**Certifications:** AWS Certified Solutions Architect – Associate (Sep 2023)

**Proficient:** Java, Python, C/C++, JavaScript, NodeJS, React, SQL

**Familiar:** Scala, TypeScript, Ruby, Docker

## EXPERIENCE

**Software Engineer Intern** – *DSilo, Inc.*

May 2023 – July 2023

- Implemented a scalable document processing pipeline to extract data from hundreds of documents in minutes to be ingested into a machine learning model.
- Used Python with AWS Lambda, API Gateway, and Textract to enable data extraction with live status tracking.
- Upgraded the ML service API to support scheduling recurring analyses as a parameter in API calls.

**Research Assistant, Data Science** – *The TReNDS Center*

May 2021 – Nov 2021

- Attempted to produce prediction models with data from the NIH's Adolescent Brain Cognitive Development Study.
- Cleansed six datasets with ~33,000 subjects each and used Python (pandas, statsmodels, scikit-learn, matplotlib) to perform paired t-tests, mixed-effects linear regression, and created prediction models.
- Created and presented a research poster at the symposium – "Investigating the influence factors of cognition and mental health outcomes during adolescence."

## PROJECTS

**GaTech Junior Capstone** – *(Python, Matplotlib, React, AWS)*

AudioT, Inc.

- Developing a data labelling tool for poultry vocalization audio for livestock monitoring in factory farms.
- Using React to build a tool to fetch audio from AWS S3 and generate spectrograms with Lambda API calls.
- Reduced spectrogram generation time from minutes to tens of seconds using multithreading in matplotlib.
- Acting as the client lead in a year-long project in an Agile environment with weekly standups.

**Full Stack Chat Web App** – *(React, Node.js, MongoDB, REST APIs, Docker, AWS)*

github.com/tkhv/chat

- Created a React web app that allows users to maintain an address book and chat with multiple users.
- Created a RESTful API server with Node.js and stored data on MongoDB Atlas.
- Built a CI/CD pipeline by pushing Docker images onto AWS ECR and deploying with AWS Elastic Beanstalk.
- Also deployed on AWS EC2 instance as an nginx router serving the API and React client.

**Cashierless Cafeteria System** – *(Python, OpenCV, Jupyter)*

- Collaboratively engineered a cafeteria system to use facial and object recognition to process food checkouts.
- Created and classified image datasets and devised preprocessing methods to allow detection with Haar cascades.

**Commute Emissions Webapp** – *(Java Spring Boot, React, JavaScript, Google Cloud)*

- Created a React web app that allows users to view the carbon footprint of travelling a selected route on a map.
- Used Java Spring Boot to create a RESTful backend server and deployed onto Google Cloud E2 and Firestore.

**Art Gallery Problem (Graph Theory)** – *(Python)*

github.com/tkhv/ArtGalleryProb

- Given an input of polygon vertices, an upper-bound on the minimum number of guards is output.
- Used Fisk's proof of the problem by triangulating the polygon then tri-coloring the vertices.

## AWARDS

**Music City Head Race** *(Georgia Tech Novice Rowing)*

- 3<sup>rd</sup> Place** – *Men's Collegiate Novice A 8+*

Oct 2022

**Future Business Leaders of America**

- 1<sup>st</sup> Place National** – *Networking concepts competitive test*
- 3<sup>rd</sup> Place State** – *Cybersecurity competitive test*

July 2020

May 2020