

# ADITYA TAPSHALKAR

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## EDUCATION

### Master of Science in Computer Science

Georgia Institute of Technology | Atlanta, GA

- **Concentration:** Interactive Intelligence

**Expected May 2022**

GPA: 4.00

### Bachelor of Science in Computer Science

Georgia Institute of Technology | Atlanta, GA

- **Concentrations:** Intelligence, People
- **Minor:** Health and Medical Sciences
- **Coursework:** Artificial Intelligence (AI), Computer Vision (CV), Machine Learning (ML), Robotics and Perception, Game AI
- **Honors and Awards:** High Honors, Zell Miller Scholar, President's Undergraduate Research Award (PURA)

**May 2021**

GPA: 3.50

## EXPERIENCE

### Product Innovation Intern

Elavon Inc. | Atlanta, GA

- Spearheaded front-end development of proof-of-concept cryptocurrency-backed point of sale vending machine using Ionic React
- Established Ethereum-backed blockchain cryptocurrency unique to Elavon with Metamask
- Utilized Microsoft Azure Computer Vision services to integrate object detection for various vendable goods from Elavon API

**January 2020 – May 2020**

### PURA Undergraduate Researcher (Audiovisual Spatialization)

Georgia Tech Sonification Lab | Atlanta, GA

- Studied participants' abilities to locate sounds in Virtual Reality (VR) environments generated in Unity
- Generated resulting point-cloud heatmap of coordinates of participant-localized sounds with Unity and HTC Vive
- Collaborated with graduate researcher to extrapolate action-object congruency bias through studied trends

**May 2019 – December 2019**

### Undergraduate Research Assistant (Automated Driving and Lane Detection)

Georgia Tech Sonification Lab | Atlanta, GA

- Measured and analyzed participants' confidence in lane-assisted automated driving through research studies
- Created application in JavaFX gauging participants' attention while operating driving simulator
- Collected and analyzed notes and data from driving-style focus groups to design heads-up displays for thrill-seeking drivers

**January 2019 – May 2019**

## PROJECTS

**KerasBlocks:** Keras neural network integration with custom-made Blockly front-end UI using Python and JavaScript

**Summer 2021**

**YOLO on GTSDb:** Trained neural network on the GTSDb dataset with high reliability using Darknet YOLO and CuDNN

**Summer 2021**

**Chest X-ray CV Detector:** Utilized CV techniques on X-rays to detect chest conditions using Keras

**Fall 2020**

**VonGo:** Assembled a CV cryptocurrency-backed vending machine for Elavon using Metamask and Ionic React

**Summer 2020**

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, JavaScript, TypeScript, Dart, Kotlin, C#, HTML, XML, CSS, Sass, LC-3 Assembly, C, Blockly

**Frameworks, Libraries, and Services:** TensorFlow, Keras, Darknet, ReactJS, Node, Git, Flutter, Firebase, Django, Azure, AWS

**Hardware:** NVIDIA CUDA Toolkit, miniSim Driving Simulator, HTC Vive, Anki Cozmo

**Additional Skills:** Docker, Unity, Adobe Creative Cloud, Adobe XD, Figma, Miro, Trello, Jupyter Notebook

## ADDITIONAL EXPERIENCE

### Mobile Application Development Workshop Lead

Healthcare Innovations | Georgia Institute of Technology

- Organize workshop content to instruct fundamental mobile application development concepts for pre-health university students
- Lead discussions and host coding exercises regarding common programming practices in Flutter and similar frameworks
- Direct attention and guidance to beginning programmers in erecting full-stack healthcare-related mobile application projects

**August 2021 – Present**

### Head Graduate Teaching Assistant

Introduction to Cognitive Science (CS 3790 and CS 6795) | Georgia Institute of Technology

- Supervised two graduate teaching assistants and coordinate weekly meetings to discuss upcoming lectures and assignments
- Arranged reading material and course resources on metacognition for classes of 50 undergraduate and 36 graduate students
- Assessed students' performance through comprehensive class quizzes, breakout sessions, and individual and collaborative projects

**January 2021 – August 2021**