Nicolas Cai

321-444-2807 | ncai34@gatech.edu | linkedin.com/in/nicolas-cai | github.com/nicolasC777

EDUCATION

Georgia Institute of Technology
Atlanta, GA

Bachelor of Science in Computer Science, Minor in Mathematics, GPA: 4.00 · *Aug. 2021 – May 2024*

Courses: Data Structures & Algorithms, Computer Organization, Combinatorics, Machine Learning, Digital Design Lab

EXPERIENCE

Georgia Tech Solar Racing
Atlanta, GA

Auxiliary Systems and Powertrain Engineer · *Aug. 2021 – Present*

- Designed parking brake switch for vehicle as warning notification for driver. Fabricated bracket mounts for integrating system with dashboard's GPIO board using **C/C++** to send CAN frames to display board.
- Refactored motor control codebase for vehicle using finite state machine library in **C++**. Encapsulated vehicle statuses (acceleration, NOS, cruise control, etc.) and supported Tivalibs integration for CAN control.

NCR Corporation
Atlanta, GA

Software Engineering Intern · *May 2022 – Aug. 2022*

- Developed Slack Analytics Bot using **Typescript** and **Node.js** server to give telemetry data collected by APIMS.
- Trained Google Dialogflow natural language processing bot to provide analyses of traffic, monthly summaries, and insights during support or outages, decreasing query wait times by 90%; visually formatted for accessibility.
- Deployed bot in Google Cloud via Harness, containerized in **Kubernetes**, and versioned with Helm charts.

Imagine Believe Realize, LLC.
Rockledge, FL

Software Engineering Intern · *June 2021 – July 2021*

- Developed mobile COVID questionnaire application using **Android Studio** and **Java** for over 40 company employees to determine eligibility for returning to work in-person.
- Integrated application with remote **MySQL** database to evaluate user responses for 10 questions.

Florida State University Young Scholars Program
Tallahassee, FL

Student Researcher · *June 2020 – July 2020*

- Designed open access research project to analyze the relationship between regional ambient CO_2 levels and air temperatures using over 10,000 data points from the National Ecological Observatory Network.
- Created statistical model in **Python** with NumPy, pandas, and matplotlib to reveal geographic factors for findings and presented project summary at research symposium.

PROJECTS

Speech2Code | *Python, Flask, React, Express, HTML, CSS*
May 2022

- Developed web application that records English speech and translates it into functional code text using the AssemblyAI speech-to-text API.
- Built front-end in React.js and back-end in Python to extract meta language which was parsed and tokenized.
- Compiled code using Express.js and CodeX API for three languages–Python, Java, and JavaScript–and supported features including function declaration, datatypes, conditionals, and loops.

Listr | *React, Firebase, Node.js, HTML, CSS*
Oct 2021

- Produced a web application in React.js framework for a music rating platform that called the Spotify API and connected users' accounts and song recommendations to the website.
- Queried user requested songs with search bar, gauged user responses with numerical rating sliders for up to 10 selected songs at a time, and stored data in Firebase database using Node.js.

Dictionary Application | *Java, Android Studio*
July 2021 – Aug. 2021

- Developed dictionary app that leveraged the Oxford Dictionary API, parsing JSON files for over 100,000 words.
- Displayed etymological information for queries and included English pronunciations using text-to-speech.

SKILLS

Programming: Java, Python, C/C++, C#, LC-3 Assembly, HTML, CSS, JavaScript, MySQL, Julia
Frameworks/Tools: Git, React, Express.js, Node.js, Flask, Jira, Android Studio, Docker, Kubernetes, Harness, Helm