

# Flavio Irani

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## EDUCATION

### Georgia Institute of Technology

Atlanta, GA

*Bachelor of Science in Computer Science, Minor in Physics: 3.55 GPA*

*August 2022 – May 2026*

**Relevant Coursework:** Data Structures, Algorithms, Computer Architecture, Operating Systems, Processor Design

**Extracurriculars:** WreckCon 2026 Student-run Convention (President), Video Game Dev Club

### Mercer University

Macon, GA

*Bachelor of Science in Computer Science: 3.92 GPA*

*Aug. 2021 – May 2022*

## TECHNICAL SKILLS

**Programming Languages:** Java, Python, Javascript/TypeScript, C++, C, C#, MATLAB, LC3/LC2200 Assembly

**Frameworks:** Linux, Node.js, Express, React, Oracle/Postgres SQL, HTML/XML, CSS, MongoDB, Bootstrap, Flask, YAML

**Developer Tools:** Git, Docker, Kubernetes, Openshift, AWS Lambda, IBM Cloud, OpenAPI, Swagger, VHDL, Tekton, Prometheus, Grafana, IntelliJ, GDB, Qiskit, IBM Quantum, Quartus, Abaqus, FFmpeg

**Languages:** Intermediate: Italian, French; Beginner: Romanian, Arabic, Japanese

**Professional Certifications:** IBM: Full Stack Software Developer, Software Engineering and DevOps, Back-End Developer  
Meta: Front-End Developer, Back-End Developer

## EXPERIENCE

### Software Engineer Intern

June 2025 – August 2025

*Cisco Systems*

*RTP, NC*

- Engineered an AI-driven SQL generation system using Python, Flask, LangChain, and Azure OpenAI (GPT-4.1) to convert natural language into executable SQL queries, allowing for accessible Cisco financial data retrieval
- Delivered human-readable financial summaries by integrating natural language post-processing, improving clarity for non-technical stakeholder
- Built a graph-based semantics layer with NetworkX to model database schemas and auto-generate join conditions, enabling accurate multi-table queries without manual input

### Software Engineer Intern

January 2025 – May 2025, May 2024 – July 2024, August 2023 - December 2023

*Itential*

*Atlanta, GA*

- Debugged and rewrote a tool that generates an OpenApi specification based on a repository, which saves 2+ hours of work for each repository, totaling 1000+ collective hours saved
- Rewrote the front-end and updated the back-end of a web tool using React and Express that allows a user to dynamically build APIs
- Utilised MongoDB, Express, and React in Node.js to create REST API endpoints for Itential's cutomers to utilize
- Increased speed of a major pipelining function of Itential Platform by 400%, saving customers minutes of wait time when queuing server requests

### Computer modeling in Geomechanics / Intelligent Tunneling Research

August 2022 – May 2023

*Georgia Tech VIP Undergrad Research Program*

*Atlanta, GA*

- Used machine learning and data science techniques in Python to simulate stress on reinforced concrete while under load with Matplotlib and NumPy to determine if a beam is safe under the DDS' structural stability criteria
- Generated the prediction of stress field around a burrowing robot from stress field at prior locations using AI and Pandas

## PROJECTS

### PokeCross Android Application | Java, XML, JUnit, Mockito, Gradle, Android Studio, Git, Trello

- Collaborated with a team on a Frogger-style Android game employing AGILE and Scrum practices in Java
- Programmed player character, implemented art and enemy AI, created screen layouts in XML
- Contributed 1k+ lines of code to the codebase via Git and managed project via Trello

### Automated Command Bot for Discord | Discord.py, async, Google API, Wikipedia API, Python

- Created a bot that would respond to input commands via text messages in a Discord channel, hosted in an AWS server
- Used asynchronous framework and APIs to communicate with Google, Youtube, Discord, and other databases
- Currently has over 50 active users in 100 discord servers.