# Ishan Vepa

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### EDUCATION

#### Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Science

Expected May 2026

GPA: 3.68 – Dean's List, Sidney Goldin Scholarship Recipient

- Concentration: Human-Computer Interaction
- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, User-Interface Design

#### EXPERIENCE

## Undergraduate Research Assistant

Aug 2024 – Present

Georgia Tech Sonification Lab and Design Studio

Atlanta, GA

- Engineering an accessible and inclusive hurricane tracking interface utilizing NOAA-sponsored climate data
- Implemented WCAG-compliant interaction with sonification, tabbable elements, and screen-reader support
- Skills: Javascript, Highcharts API, GeoJSON, HTML, CSS, Figma

# Augmented Reality Software Development Extern

Sep 2024 – Nov 2024

Snap Inc.

Remote

- Developed 3+ dynamic 2D/3D AR filters themed around Premier League Soccer using Snap Lens Studio
- Increased user retention from 5 to 15 seconds by leveraging the Lens Scripting API for sentiment-driven effects
- Iterated on UX components in Figma with Snap developers to ensure alignment with marketing strategy
- Skills: Javascript, Figma, Snap AR Lens Studio

#### Software Engineering Intern

May 2024 - Aug 2024

Datamaxx Group

 $Tallahassee.\ FL$ 

- Reduced user identity verification time from 1 minute to 20 seconds, by developing an automated ID parsing and user face verification service in ASP.NET with AWS Textract and Rekognition API
- Enhanced user security screening efficiency for 100+ vendors by implementing a QR code visitor check-in system
- Authored comprehensive documentation on both services for use by team of 20+ developers
- Skills: C#, ASP.NET MVC, jQuery, HTML, CSS, SQL, AWS API

# Undergraduate Researcher, Data Analytics Team Leader

Aug 2023 - Dec 2024

Georgia Tech Vertically Integrated Project

Atlanta, GA

- Refactored sponsor funding allocation for principal investigators by parsing CSV data into Tableau dashboards to accommodate \$1.3 billion in annual research
- Leveraged Pandas to parse 150,000+ research grants with 50 parameters into a structured CSV format
- Skills: Python, Pandas, Figma, Excel, Tableau

#### Projects

AI Academic Search Engine | Next.js, Python, LangChain FAISS, Flask, Pandas, Semantic Scholar API

- Built an AI academic search engine to perform LLM-based similarity search beyond keyword matching
- Engineered a scalable RAG pipeline that ingests papers via the Semantic Scholar API into FAISS vectorstore
- Designed REST endpoints for ingestion and similarity queries, enabling vector search for 1,000,000+ abstracts

#### Dungeon Crawler Android Game | Java, Android Studio, XML

- Built a "Luigi's Mansion" dungeon crawler Android game with 5+ levels and 5 enemies
- Using MVVM architecture and implemented software design patterns: Strategy, Observer, Singleton, Factory

## Computational Analysis of Contemporary Music | Python, BeautifulSoup

- Web-scraped 100+ songs from the Billboard Hot 100 over 10 years, analyzing trends in pop music
- Processed 340+ data points in spreadsheets using Python (BeautifulSoup, urllib, openpyxl) to generate insights

## TECHNICAL SKILLS

Languages: Java, Python, C#, C, JavaScript, SQL, MySQL HTML, CSS, TypeScript

Technologies: ASP.NET MVC, React.js, React Native, Next.js, Flask, BeautifulSoup, Pandas, LangChain FAISS, JUnit

Developer Tools: Git, Visual Studio, Android Studio, AWS Amplify, Accurev SCM

Design/Visualization Tools: Figma, Adobe Photoshop, Tableau