

Uday Goyat

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Science, GPA: 4.0, Faculty Honors

Expected Graduation: May 2025

Selected Coursework: Computer Systems & Networks, Data Structures & Algorithms, Database Systems, Probability Theory

PROFESSIONAL EXPERIENCE

NVIDIA

September 2024 – November 2024

Incoming Software Engineer Intern

Santa Clara, CA

- Develop GPU C++ infrastructure for computing chips, ensuring reliability and maintainability.

Ramp

May 2024 – August 2024

Incoming Software Engineer Intern

New York City, NY

- Build performant and scalable platforms and services powering Ramp's innovative products.

MathWorks

May 2023 – August 2023

Software Engineer Intern

Boston, MA

- Created testing framework to run **6000+** tests which resolved 40+ critical bugs concerning visual signal data in Simulink.
- Added automation tools like dragging, clicking and visual result verification to the internal **JavaScript** testing framework.
- Designed a **scalable** web app to visually verify **45,000** signal data points, check the test statistics, and report failed tests.

New College of Florida

June 2020 – June 2022

Software Engineer Intern

Sarasota, FL

- Utilized **PortAudio**, **Armadillo (C++)**, **NumPy**, and **Scipy** to implement 5 pitch detection algorithms.
- Generated annotated pitches with **98% accuracy** for over **960 minutes** of vocal ensemble music.
- Created a new polyphonic pitch detection algorithm using signal processing; accepted in **ISMIR 2022 conference**.

RESEARCH

Technologies and International Development Lab

August 2022 – Present

Data Scientist

Atlanta, GA

- Webscraped **10 million+** comments on Twitter using BeautifulSoup and Scrapy to gain insights into an online narrative.
- Engineered RESTful APIs with **MongoDB**, mastering schema design, index optimization, and aggregation pipelines.
- Utilized **BERT models** for topic modeling, sentiment analysis, and graph algorithms to identify 7 narrative proponents.

Visual Analytics Lab

January 2024 – Present

Software Engineer

Atlanta, GA

- Developing a web app for comparing ChatGPT-styled logs of multiple users using **MongoDB**, **Flask**, and **Next.js**.
- Leveraging unused chat log history for LLM-powered chatbots like **OpenAI's ChatGPT** or **Google's BARD**.
- Proficiently analyzing chat logs to compare user chats through sentiment analysis, topic modeling, and text metrics.

PROJECTS

SummarEase

November 2023 – Present

- Created a web app with **Next.js**, **MongoDB**, and **Flask**, incorporating websockets for real-time communication.
- Automated the process of scraping book summaries by leveraging third-party APIs for content retrieval.
- Implemented a Python **Llama.cpp** server with Vicuna models to perform comprehensive content summarization.

LiDarLink (HackGT)

October 2023 – November 2023

- Developed LiDarLink, an innovative iOS app utilizing **SwiftUI**, **Apple's Room Plan API**, and **AWS S3** integration.
- Created an intuitive interface for LiDAR technology, using **Apple Room Sense** for real-time 3D environment creation.
- Surpassed limitations of alternative apps by improving texture mapping through color translation from the rear camera.

AWARDS & PUBLICATIONS

Hacklytics 2024

February 2024

Placed **2nd** in **Traversaal.ai** track out of **1000+** students in the largest data science collegeiate hackathon.

MathWorks Math Modeling Challenge

April 2022

Placed **3rd overall** out of **600+** papers submitted, presenting the research at Jane Street to NYU professors.

SKILLS

Languages: Python, JavaScript, TypeScript, C++, Java, MATLAB, Rust, GLSL, HTML, CSS, SQL

Frameworks: React.js, Next.js, Node.js, Express.js, PyTorch, TensorFlow, Flask, Django, MongoDB

Developer Tools: Git, Unit Testing, Relational Database, Postman, Figma, Azure, AWS, Docker, QA

Libraries: OpenGL, OpenCV, Pandas, NumPy, SciPy, Matplotlib