

Johnny Liu

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Education

Georgia Institute of Technology

M.S. in Computer Science

Aug 2025 – Aug 2027

(Expected)

University of Florida

B.S. in Computer Science, Honors Cum Laude

Aug 2022 – Aug 2025

GPA: 3.5/4.0

Skills

Languages: Python, Java, C++, C#, Javascript, SQL, MATLAB

Libraries / Frameworks: React, Flask, .NET Core, PyTorch, TensorFlow, Hugging Face, Pandas, NumPy, OpenCV, MUI

Tools & Deployment: Docker, AWS (EC2, RDS, S3), Firebase, Git, Jupyter, Jenkins

Experience

Amazon - NLP & Data Engineering Externship

Remote

Sep 2025 - Dec 2025

Tech Stack: Python, NLTK, pandas, matplotlib, Google Sheets / Slides

- Developed a **Python** NLP pipeline using **NLTK** to preprocess and analyze **20+ GB** of unstructured text data across **500+** employee feedback documents, including **tokenization**, **stop-word filtering**, and **lemmatization**.
- Engineered data transformation workflows in **pandas** and produced analytical visualizations with **matplotlib** to surface cohort-level **trends** and **operational risk signals**
- Exported processed datasets and visualizations to create executive slide decks, translating NLP results into data-backed insights presented to Amazon leadership and supporting initiatives projects to improve fulfillment center efficiency

HD Supply - Software Engineering Intern

Atlanta, GA

May 2025 - July 2025

Tech Stack: React / TypeScript, .NET, C#, Docker, PostgreSQL, Jenkins

- Cut developer onboarding time by **~75%** (**~8 to ~2 weeks**) by writing UI-API documentation and personally onboarding **2+** new engineers.
- Built a **C# / SQL** validation system to flag **30K** inactive SKUs out of **163K**, preventing invalid promotions and pricing errors and saving the company **~\$65K** annually in avoided losses and cleanup costs.
- Delivered React (**TypeScript** + **MUI**) components integrated with **.NET Core** APIs, improving internal tool usability for **3,600+** merchants

UF - Lead Undergraduate Researcher

Gainesville, FL

Jan 2024 - Aug 2025

Tech Stack: Python, Pandas, Hugging-Face (BERT Models), Ollama

- Fine-tuned **BERT-based** models on **150k+** ancient Greek & Latin texts for sentiment / emotion classification, boosting **F1-score** by **18%**
- Constructed end-to-end training pipelines with automated data ingestion, achieving **93%** accuracy on validation sets
- Oversaw a team of **20** total researchers, and **co-authored two conference abstracts**
- Architected a Greek lemmatizer in **Python & Pandas**, reducing NLP preprocessing time by **320%**

Leadership and Activities

ColorStack, UF HireLens PM

Gainesville, FL

Jan 2023-May 2025

Tech Stack: Python (Flask), React, OpenCV, Google Drive API, BERT, DeepSeek V3

- Designed **Flask** backend and **Google Drive API** workflows for secure video handling and storage
- Processed **100+** hours of sample mock interviews
- Deployed computer vision modules and audio analysis (**Librosa**, **STT**) to extract interview metrics: **pause frequency**, **tone**, and **eye-contact**
- Integrated **Hugging Face** Transformers for **speech-to-text** transcription and **sentiment analysis** of answers from users

Projects

Sublettee | Python, React, Google Maps API, AWS EC2, AWS RDS, AWS S3

- Aggregated sublease listings from Facebook Marketplace, Apartments.com, and other sources through APIs and web scraping
- Geocodes and maps available sublets with an interactive Google Maps interface
- Stores listing data in **AWS RDS** and user-generated images in **AWS S3**; application hosted on **AWS EC2**