

EDUCATION

- **M.S. Computer Science (ML Specialization) GPA: 4.0** *Georgia Institute of Technology (Jan 2024 – Dec 2025)*
- **B.S. Computer Science** *University of Florida (Jan 2020 – Dec 2023)*

EXPERIENCE

Java Developer (Seasonal Temp)

Hyundai Glovis

Nov 2024 – July 2025

- Maintained and worked on the **Java Spring** Back-end of the Full-stack web application (Sencha Ext JS frontend) used at Vehicle Processing Center intended for Hyundai Vehicles. The web application is used by operators at Vehicle Processing center to **track and process the vehicle processing of Hyundai vehicles**, which include installation of undercover, loading into trucks and shipping.
- Inspect and maintain the SQL Procedures (PL SQL) and handle data issue that arise during the operation of the mentioned process-tracking web application.

Software Engineer Intern

Boeing Intelligence & Analytics

June 2024 – July 2024

- Worked on a **GenAI** prototype with AWS GenAI Innovation Center to enable natural language questions on cyber data, providing well-formed answers using **FastAPI** backend, **Qdrant vector database**, text embedding model, and **AWS Bedrock**, configured for Retrieval Augmented Generation (RAG).
- Implemented **agent** using **langchain** framework that was able to choose which tool based on users' requests. **Fine-tuned** agent prompts and tool description to **invoke** the agent to use the correct tool.
- Built **Arrakis Tools** that Agent can use 1) to check if the Arrakis dataset is uploadable 2) can upload if so 3) delete the attached files after upload 4) delete a file attached 5) delete all the files that are attached 6) list the files attached 7) count how many files are in the Arrakis dataset.
- Built **Front-end** features of file **attach**, **delete buttons** as well as the file attachment **message** that gets updated periodically showing how many files the users attached using React hooks, **useEffect**. Implemented safeguarding features of **file clean** deletion upon uploading to Arrakis dataset and upon session closeout, or upon close of the window using Python libraries **asyncio**, **atexit**, **shutil**, **datetime**, **timedelta** and React framework **useState**, **useRef**, **useEffect**, **axios**.
- Implemented **automated unit testing** of Agent and tools using a **mock class** with Python libraries, **pytest** and **unittest**.

Software Engineer

LSP LLC(Assigned at Ultium Cells)

Sept 2023 – May 2024

- Improvement of **insulation overlay edge detection C++ MFC** using **openCV**. Designed a high-speed image processing function using memcopy function and optimized a **multi-threading** procedure by building a class that uses a pool of **thread** to optimize usage of threads.
- Mentored and provided help session to a junior developer (2 developers, 1 manager/company owner)

AWARDS

- **Peraton Award** at 2024 HackPSU (Hackathon @Penn State University), **Best React App** – “Community SOS”
- **Grand Prize** (1st Overall) at Kent Hack Enough 2024 (Hackathon @Kent State University) – “Empty The Fridge”
- **(Solo) 2nd** Café Cultura Challenge at Shellhacks 2024 (@ Florida International University) – “Latinnect”

PROJECT (<https://hlee18lee46.github.io/my-react-app/>)

Russian House Predictor (Python, PyTorch, Scikit-learn, Streamlit, Sqlite)

Worked as a lead developer to preprocess the data using Sqlite and sql queries and numpy, also built **linear regression model** and **random forest model**. Calculated the distance of each house to the center of each city and used it as one more predictor. Reduced the **MAE** to the 7% of the mean price of houses.

“Latinnect” – (Swift, Supabase) (Solo)

Built an iOS application using Swift and Supabase. The application is a digital marketplace intended for Latine community. CRUD operations using Supabase to display the product and vendor data and upload a product data that user wants to sell.

LANGUAGES, FRAMEWORKS, SOFTWARE AND OTHER TECHNOLOGIES

- **Languages:** Swift, Python; C++; C; C#; Kotlin; Java; html; CSS; JavaScript; Typescript
- **Frameworks:** React.JS; Next JS; Angular; Flask; Django, Next JS
- **Libraries & Database:** PySpark; OpenCV; Streamlit; Oracle SQL; mySQL; SQLite; Supabase
- **Machine Learning:** ML Azure; Tensorflow; Keras; PyTorch; scikit-learn; MLRose
- **Cloud & other Tools:** AWS; EC2; S3; Lambda; Ubuntu; Git; GitHub; IntelliJ; Docker