

ALEX DIAZ

📍 Tokyo, Japan · ✉ alejandrojsdiaz@outlook.com · 📞 +81 080-7266-8529
🐙 GitHub · in LinkedIn · 🐦 Twitter · 📁 Diasdiaz

EDUCATION

Georgia Institute of Technology <i>Master of Science in Computer Science GPA 4.0 / 4.0</i>	Atlanta, GA Jan. 2021 – May 2024
The University of Georgia <i>Bachelor of Arts in Economics, Minor in History</i>	Athens, GA Aug. 2013 – May 2017

PROJECTS

- **2021 – Multi-threaded socket server and client** – I wrote a multi-threaded server in C utilizing the Sockets library. Files are requested via HTTP requests. A companion client I coded is used to make bulk requests and transfer files over a predetermined socket. Both programs provide IPv4 / IPv6 interoperability and multi-threading (exclusively C libraries).
- **2021 – AI Agent** – I developed an AI agent that uses human cognition strategies to solve Raven's Progressive Matrices. I used computer vision and human-like cognition algorithms to give the agent the ability to process images of the problems to solve IQ problems; resulting in a success rate of 70%. I implemented the agent in Python, using Object Oriented programming, OpenCV, and NumPy. I designed my agent's architecture based on Newell's SOAR model, enabling learning strategies via meta-cognition when heuristics failed.
- **2020 – TimeTime** – I programmed a Java Android application that prompts users (via lock screen) to log their daily activities. The application uses a model-view-controller pattern to provide users an infinite scrolling list and enable interactions with good performance. The architecture utilizes a persistent data access object database with multi-threading capability to save all user data locally.
- **2019 - Spotify Music Advisor** – I wrote a Java application using the Spring boot framework, capable of REST API communication with Spotify. I implemented the application to use OAuth. Enables users to query both Spotify's official playlists and their own.

EXPERIENCE

Software Engineer Tutor <i>Tokyo Coding Club & FDS Services</i>	Feb 2020 – Present Tokyo, Japan
<ul style="list-style-type: none">• Teaching students on software engineering practices and the fundamentals of Python and OO design.	
Data Analyst Manager <i>United Parcel Service (UPS)</i>	Nov 2018 – Nov 2019 Sandy Springs, GA
<ul style="list-style-type: none">• Migrated my team's reporting stack to an automated workflow.• Created dashboards to analyze and aggregate metrics in my division; led to the automation of reports.• Implemented automated reporting applications by designing and rewriting SQL database tables to feed more than 500,000 data entries into VBA and Python applications.• Led and coordinated inter-team reporting, streamlining other teams' workflows; Reduced average reporting workload from 3 hours to 3 minutes using applications I wrote in Python (Pandas, SQLite).• Developed software and mentored peers on three teams using Python, MS SQL, and VBA.• Finalists in the UPS upstart startup program; coordinated with a multi-national team to present how encryption technology could impact UPS. Member of the UPS mentorship program.	

TECHNICAL SKILLS

Languages: Java, Kotlin, Python, C, C++, Go, SQL, VBA, HTML/CSS, Bash
Frameworks & Libraries: Spring, JUnit, Gradle, Flask, Android, NumPy, Pandas, OpenCV
Dev Tools: Git, Agile, Google Cloud, AWS, VIM, Docker, Make, Linux, Unit Testing
Misc: CFA LV 1, API design, systems design, software architecture, equities, Math club, Seinfeld