

# RYAN MILES

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## EDUCATION

**Master of Science in Computer Science** *Specialization in Computing Systems* August 2021 - May 2022  
Georgia Institute of Technology, Atlanta, GA.

**Bachelor of Science in Computer Science** *Specialization in Graphics & AI* August 2017 - May 2021  
Georgia Institute of Technology, Atlanta, GA. GPA: 3.90

## SKILLS

**Programming** (Proficient) Java, Kotlin, Python, Android | (Beginner) LaTeX, Typescript, SQL, React  
**Android Libraries** LiveData, Android Jetpack, Timber, Dagger, Firebase, OkHTTP, Retrofit, Fresco, EventBus  
**Coursework** Database Design, Data Structures and Algorithms, Computer Graphics, Artificial Intelligence  
**Platforms** Mac, Windows, Android, Ubuntu Desktop, Ubuntu Server, NixOS

## WORK EXPERIENCE

**Android Developer Intern at BlueFletch**, Atlanta, GA May 2018 - April 2019 & April 2020 - Current

- Developed an AOSP platform service to run system level commands on manufacturer signed devices
- Programmed an AES encrypted IPC channel for secure data transfer between multiple apps through AIDL
- Designed a customizable & secure Android replacement notification drawer to allow/deny specific notifications
- Developed an Android for Work platform in Java that increased supported devices by 1500%
- Increased Android project's code coverage from 0% to 70% using Espresso, JUnit, Mockito, and Robolectric
- Implemented a unified theming library in Java to save 6-7 development hours per demo request

**Teaching Assistant at Georgia Tech**, Atlanta, GA Jan 2019 - Present

- Teaching Assistant for: Intro to Computer Graphics, 3D UI Design in VR, Intro to Object Oriented Programming
- Taught a 1.5 hour weekly recitation, graded tests and homework, and helped create assignments.

**Research Assistant in the AEL Lab at Georgia Tech**, Atlanta, GA Jan 2021 - Aug 2021

- Spearheaded integrating VR in a React conferencing platform using Babylon.js and WebXR
- Deployed the project to an EC2 instance with backend PostgreSQL, NGINX web server, and Typescript codebase

## PROJECTS *All projects available at ryanmiles.me*

**Unfoldit Android** *Kotlin, Dagger, Firebase Analytics, Single Activity MVVM Architecture* Aug 2018 - Present  
*Creation of Unfoldit Android, a mobile app to test and enhance your spatial awareness abilities*

- Developed a production ready Android game around spatial awareness with Kotlin, modern libraries, and tests
- Finalists for Georgia Tech 2019 Inventure Prize with 1000+ Downloads and 100+ five-star reviews

**Machine Learning For Trading Project** *Python, Pandas, Numpy, Matplotlib, LaTeX* Aug 2019 - Dec 2019  
*Wrote a final project paper in LaTeX using Random Forest with technical indicators to trade stocks*

- Calculated Momentum, Bollinger Bands, and Volume-Price Trend % to use as technical indicators
- Implemented Random Forest and a market simulator using Python, Pandas, and Matplotlib for the report

**Europe Train DB System** *SQL, EER Diagram, IF Diagram* May 2019 - Aug 2019  
*Collaborated on designing and implementing a database system for Europe's Train System*

- Designed an Enhanced Entity Relationship Diagram & Information Flow Diagram to model the system specification
- Programmed the SQL create table & query statements per each specification

**Space Trader Android** *Java, Room, UML, JUnit, GSON, RecyclerView, Travis.ci* Jan 2019 - May 2019  
*Collaborated on Space Trader Android, a retro complex strategy game, redesigned for Android*

- Lead our five person team in weekly scrum meetings and code review for each project milestone
- Designed the backend Room database with serialization for saving & restoring player state

**ParkHere Android** *Java, EventBus, Bottom Navigation, Google Maps* November 2017  
*Creation of ParkHere, an Android app that allows users to find & pay for nearby parking*

- Leveraged Google Maps with custom markers to show users nearby parking lots with their prices
- Designed the UI to allow the user to pay for a parking spot, increase their parking time, or contact support