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EDUCATION: **University of Utah, Salt Lake City, UT** *08/2025-Current*
PhD in Computing (AI/ML Specialization) *Current GPA: N/A*
University of Florida, Gainesville, FL *08/2021 - 05/2025*
Bachelor of Science *GPA: 3.94/4.0*
Majors: Computer Science and Statistics *GRE: 337(Q: 170/170, V: 167/170)*
Honors: UF Honors Program | Undergraduate Research Scholars Program | UF Benacquisto Scholar (Full-Ride Scholarship) | Dean's List | National Merit Finalist 2021

KNOWLEDGE & SKILLS: **Programming Languages & OS:** Java, JavaScript, C++, Python, Linux, Microsoft Windows
Frameworks and Platforms: Pytorch, Spring, Hibernate, Google App Engine, .NET Framework
Databases and Tools: AWS EC2, MySQL, SQL, GraphQL, Jakarta, Apache Tomcat, Google Cloud Storage, WinForms, Multithreading, Distributed Computing, GitHub
Web/Mobile Development: Angular, Java Servlet, HTML, CSS, React, Ant Design, Node.js, MVVM, Spring MVC, Android (Kotlin)
Data Analysis: R, MATLAB, Microsoft Excel, Jupyter Notebook

WORK EXPERIENCE:

08/2024 – 05/2025: **Peer Mentor, University of Florida**

- Tutor students for the Information and Database Systems course under Professor Mohammed
- Grade student submissions and administer examinations

06/2024 – 08/2024: **Software Engineer Intern, Fidelity Investments**

- Developed a money transfer application using Angular and GraphQL
- Implemented backend API calls as services to query and format data as well as direct front end navigation

10/2023 – 05/2024: **Peer Tutor, Academic Tutoring Center, University of Florida**

- Offered tutoring to fellow students, both one-on-one and in small groups, in the core programming curriculum for Computer Science and Computer Engineering majors

02/2024 – 05/2024: **Research Assistant, Professor Leo Duan's Research Group, University of Florida**

- Statistically analyzed and visualized travel movement trends caused by Hurricane Ian utilizing R
- Identified the traffic volume patterns before, during, and after Hurricane Ian
- Parsed and cleaned geospatial data at the census tract level using Python

08/2023 – 01/2024: **Research Assistant, The Embodied Learning & Experience Lab, University of Florida**

- Developed a smartwatch application to facilitate learning in everyday life for children aged 9 to 12
- Compiled relevant peer-reviewed journal articles to determine research initiatives

05/2022 – 08/2022: **IT Department Business Analyst (Intern), Supplemental Health Care (SHC), UT**

- Automated user permission assignment process, reducing user creation time by 50%
- Implemented a notification system to optimize upskilling of the 10,000+ SHC affiliated nurses
- Collaborated with multiple groups (software developers, stakeholders, project managers, and quality assurance auditors) to streamline the internal system
- Gained familiarity with the SDLC processes and documentation

PROJECTS:

Undergraduate Capstone Project: Reinforcement Learning Model for Turn-based Simulation

- Developed a custom simulation environment for the turn-based strategy game *Settlers of Catan* to support reinforcement learning experiments
- Implemented a Deep Q-Learning agent using PyTorch with an epsilon-greedy exploration strategy
- Trained the agent and competed against a state-of-the-art benchmark agent, achieving a 64% win rate in one-vs-one simulations
- Paper accepted to I/ITSEC 2025 and nominated for Best Paper Award in the Simulation category

Household Location Choice Model: Discrete choice modeling of housing behaviors in Salt Lake County, Utah

- Reduced the number of variables from 150 to 12
- Employed feature selection techniques, including stepwise regression, lasso regression, principal component analysis, and random forest
- Utilized variable transformations and interactions, optimized selection using a genetic algorithm

Online Shopping Application: A basic imitation of Amazon Online Shopping

- Designed and implemented interactive web pages with ReactJS and Ant Design
- Developed backend REST APIs (in Spring MVC pattern) for users to register, search, and check out
- Worked with Node.js to asynchronously handle real-time data within the JavaScript framework
- Employed Hibernate to manipulate data stored in a MySQL instance on Amazon RDS
- Deployed to Amazon EC2 for scalability and used Spring Security framework for authentication and authorization

Online Room Booking Site: A simple version of Airbnb

- Constructed a dynamic web application using React and designed the UI with Ant Design component library
- Used SpringBoot to implement backend services for uploading, deleting, searching, and reserving stays
- Stored host-generated data in a MySQL database, with media files stored in Google Cloud Storage to ensure durability and reduce database size, cost, and load latency
- Implemented a geo index with Elasticsearch to find the stays near user-selected locations
- Authenticated users with JSON Web Tokens (Spring Security framework) to improve app security and hosted the backend service on Google App Engine to improve future scalability and stability

NFT Search and Price Visualization:

- Developed a web application capable of searching for and viewing NFTs and their transaction histories
- Enhanced the user experience with Ant Design Component Library
- Collected relevant data from the third party Moralis NFT API
- Constructed line charts of NFT prices using Recharts to visualize prices over time

Android Music Player:

- Leveraged Jetpack Compose and Hilt Dependency Injection library to create a music player app with Kotlin
- Handled network requests using Retrofit and created a mock REST API JSON server for endpoints
- Implemented the home, album, and favorite views using traditional XML and Jetpack Compose in the MVVM architecture framework, with a bottom navigation bar using Jetpack Navigation component for view switching
- Employed Room Database to locally cache the list of favorite albums
- Implemented the music playback function and its UI by incorporating Google Exoplayer