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Education

Georgia Institute of Technology

Aug 2022 - Dec 2026

Bachelor of Science in Computer Science with threads in Media and Modeling&Simulation

Experiences

T+ID Lab, Georgia Institute of Technology

Atlanta, Georgia Aug 2025 - Present

Undergraduate Research Assistant

- Contribute to database management and curation of datasets to support AI/LLM development and evaluation.
- Assist in qualitative research to capture user and contextual needs that inform dataset design and model adaptation.
- Support machine learning workflows, including preprocessing, fine-tuning, and benchmarking of large language models.

Image Analysis Machine Learning Model for 3D Printing, Georgia Institute of Technology [Python] Undergraduate Research Assistant

Atlanta, Georgia Aug - Dec 2023

- Helped improve the Machine Learning model that detects defects in 3D printer materials with improved accuracy over 90% accuracy.
- Researched, designed, and implemented a Convolutional Neural Network (CNN) binary image classification model using Keras' sequential model and TensorFlow, scikit-learn, NumPy, and matplotlib.
- Implemented model by applying data augmentation to increase the data set with optimized performance.

Office of Information Technology, Georgia Institute of Technology

Atlanta, Georgia

IT Service Student Assistant

Aug 2023 - Present

- Managed rapid, complete image processing of 200+ laptops each semester via Microsoft Deployment Toolkit to protect previous user's data and provide convenience for the next loaner at every return.
 Administered laptop rentals for student loan equipment, managing requests and return status for 200+ students per semester through email
- communication.
- Guided and helped 20+ students every day for printing services at the library and ensured enough paper, materials and ink are stocked.

Projects

Seoul Metro Accessibility Guide [React, JavaScript, Firebase]

Jul - Aug 2025

- Developed a web application that provides accessible subway routes in Seoul, designed for users with disabilities and the elderly.
- Built a pipeline that integrates subway station data from the ODsay API with elevator location data from Seoul Open Data to generate optimal routes with accessibility location.
- Designed and implemented a user-friendly interface for users to see the path in nearly 350 subway stations across Seoul.

Business Owner Management Database and GUI Development [Tkinter, Python, MySQL]

Aug - Dec 2024

- Designed and implemented a database management system for a virtual logistics company using MySQL, structuring data organization and reliability.
- Built a real-time information management system with Python's Tkinter, enhancing usability and efficiency for administrators.
- Led an agile team of 3 developers, coordinating meetings to ensure progress and timely delivery.

<u>Personalized Newsletter</u> [React, Next.js, Typescript]

Mar – May 2024

- Built an interactive web application for newsletter distribution, increasing accessibility and engagement compared to traditional sharing methods in image.
- Enhanced user experience by integrating real-time data features and launching a mobile-friendly design, boosting usability across devices.
- Grew adoption to 300+ monthly users, improving communication reach and efficiency.

NLP Question Merging Tool for the Bible Translation Community [Python]

Mar 2024

- Led an agile team of 4 developers to build an application that identifies and suggests duplicate questions across Bible comprehension question sets, improving content consistency.
- Streamlined data processing by standardizing disparate formats into JSON, simplifying analysis and reducing overhead.
- Coordinated virtual meetings with stakeholders to ensure alignment, fostering effective communication and seamless project execution.

2D Dungeon Crawler Game [Java]

Aug - Dec 2023

- Developed an object-oriented 2D Android game with player movement controls and tile dungeon layouts.
- Generated JUnit tests to verify complete accuracy of the player object, its methods and external game functions.
- Enhanced software development process by creating domain model, use case diagram and system sequence diagram.
- Managed the project by coordinating team meetings, tracking progress on Trello, and maintaining deadlines for a punctual workflow.

Skills

Programming Languages: Python, Java, SQL, JavaScript, TypeScript, C, C++, CSS, HTML, Junit

Software: GitHub, Tableau, Power BI, Android Studio, VScode, IntelliJ, Spline, Linux, Figma
Languages: English [Professional], Korean [Native], Chinese [Intermediate], Spanish [Beginner]

Relevant Coursework: Systems and Networks, Dsgn&Analysis-Algorithms, Database Systems, Computer Graphics, Computer Organization & Programming, Applied Combinatorics, Objects and Design, Data Structures & Algorithms, Discrete Mathematics,

Introduction to Object-Oriented Programming