Heejoo Jin

✉ hjin77@gatech.edu | 📞 470-557-4297 | 🖥 heejoojin.com | ⓞ github.com/heejoojin | 🔗 linkedin.com/in/heejoojin

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia | August 2017 - December 2021
Bachelor of Science in Computer Science | GPA: 3.74 / 4.0

SKILLS

Java, Python, SQL
PyTorch, Keras, OpenCV, Scikit-learn, Pandas
HTML, CSS

PROFESSIONAL EXPERIENCE

DEEPNOID, Seoul, South Korea   October 2020 - December 2020
Deep Learning Research Intern
· Worked with National Cancer Center on developing a breast cancer histology image classification model with an accuracy of 99%.
· Optimized a U-Net model for multi-class semantic segmentation of bone cyst MR images, reducing the loss by 3%.
· Managed model deployments via REST API using Kafka & Flask and visualized localizations of detected diagnostic areas.

Samsung Electronics, Suwon, South Korea   June 2020 - August 2020
Software Engineer Intern
· Designed a Bluetooth Low Energy (BLE) connectivity solution that covers edge cases of Galaxy Buds Automatic Sound Switching.
· Developed a Proof of Concept Android application for BLE connectivity with Galaxy Buds using Java & Android BLE API.

WarnerMedia, Atlanta, Georgia   January 2019 - May 2019
Quality Assurance Analyst Intern
· Debugged and tested mobile games and apps that reached 1,000,000+ users and documented defects in a concise manner on Jira.
· Completed user research with children aged 8-12 to identify users' needs to improve Cartoon Network Arcade app.

RESEARCH EXPERIENCE

Exoskeleton and Prosthetic Intelligent Controls (EPIC) Lab, Georgia Tech   May 2019 - Present
Machine Learning Undergraduate Researcher
· Build various machine learning models for user gait variable estimation to optimize health monitoring and exoskeleton assistance control.
· Utilize Vicon motion capture system and biomechanical sensors to understand human-robot interaction.

Augmented Environment Lab, Georgia Tech   August 2018 - December 2018
Augmented Reality Undergraduate Researcher
· Contributed to the idea creation and Unity development of a mixed reality theatre performance in collaboration with DramaTech Theatre where AR was used to convey and visualize the emotions of the scene.

PROJECTS

Cardiovascular Disease Classification
· Compared statistical values of supervised & unsupervised machine learning algorithms to analyze their performances using Scikit-Learn.
Electrocardiogram (ECG) Anomaly Detection
· Developed an LSTM Autoencoder to detect signs of abnormal cardiac activities with an accuracy of 95%.
Real-time Face Recognition
· Implemented a customized face recognition system on Raspberry Pi using OpenCV that builds a database for detected faces in real-time.
Space Trader
· Built an Android application using Java that reintroduces a classic strategy game, Space Trader, utilizing Scrum development process.
· Used Firebase for authentication, access control, and data management, such as real-time game item transaction tracking.

PUBLICATION & PRESENTATION

· H. Jin, I. Kang, G. Choi, D. Molinaro, A. Young, Wearable Sensor-Based Step Length Estimation During Overground Locomotion Using a Deep Convolutional Neural Network, *IEEE Engineering in Medicine and Biology Society (EMBC)*, May 2021, Submitted
· H. Jin, M. Shepherd, D. Molinaro, I. Kang, A. Young, Convolutional Neural Network-based Gait Phase Estimation and Classification Using a Robotic Ankle Exoskeleton, *Georgia Tech Annual Undergraduate Research Symposium*, April 2021

LEADERSHIP & SHADOWSHIP

Korean American Scientists and Engineer Association (KSEA), Georgia Tech   May 2020 - May 2021
President
· Empowered Korean-American students at Georgia Tech by providing opportunities to engage in career development and networking.
Microsoft University Shadowship, Microsoft   March 2021
· Obtained insight into day-to-day responsibilities of a software engineer at Microsoft and participated in mentorship sessions.