Heejoo Jin

🖊 hjin77@gatech.edu | 📞 470-557-4297 | 📕 heejoojin.com | 🖸 github.com/heejoojin | 🛅 linkedin.com/in/heejoojin

EDUCATION SKILLS

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

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

 $\cdot \ \, \text{Compared statistical values of supervised \& unsupervised machine learning algorithms to analyze their performances using Scikit-Learn.}$

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.