# YUNHO CHO

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#### **EDUCATION**

#### **Georgia Institute of Technology**

Atlanta, GA

B.S. in Mechanical Engineering with Minor in Psychology

Jun 2021 - May 2024 (Expected)

- Overall GPA: 3.61/4.00
- Recipient of A. James Clark Scholarship (4-year full-ride w/ stipends)

#### **EXPERIENCE**

# SightWise [https://sightwise.co/]

Atlanta, GA

Software Engineer / Co-Founder

Apr 2023 - Present

- Al-based accessibility suite for the blind and visually impaired, leveraging ML, Al, & meticulously designed UX
- Fine-tuned large language models (LLMs) for visual description and deployed to AWS EC2 instances w/ GPUs
- Used TensorRT, Apache TVM to accelerate machine learning models for 5x speedup on Android & iOS
- Compiled machine learning models to execute in finger-sized embedded computer with ARM processors
- Over 1.5k users in first launched Al-based visual scene description product [https://sightwise.app/]

# HARRIS Lab @ Georgia Tech

Atlanta, GA

Undergraduate Researcher

Aug 2022 - Present

- Automation of finite-element analysis modeling and orchestration using COMSOL Multiphysics and Python
- Performed data-driven, statistical multi-objective optimization of geometry and sensor design parameters
- Presented @ 33rd World Congress on Biosensors (Elsevier), journal paper under review as co-first author

#### **HEART Lab @ Asan Medical Center**

Seoul, Korea

Research Intern

May 2022 – Aug 2022

- Developed finger-worn wearable visual-tactile sensory substitution device containing micro-actuators
- Implemented computer vision models (object detection, segmentation, multi-object tracking, edge detection, visual grounding & question answering) and optimized for real-time inference using CUDA and TensorRT

### **Adaptive Robotic Manipulation Lab**

Atlanta, GA

Undergraduate Researcher

Feb 2022 - May 2022

• Devised thumb actuation mechanism of cable-driven assistive exoskeleton for pediatric patients

Tap Systems Pasadena, CA

UI/UX Design Intern

May 2020 - Aug 2020

• Designed natural & efficient input layout for Korean based on character frequency & finger fatigue modeling

#### **PROJECTS**

## PCB-sEMG: Cost-Effective Surface Electromyography (sEMG) Sensor

Sept 2021 - Dec 2021

- Used cost-effective PCB manufacturing processes to create extremely affordable gold-plated EMG electrodes
- Implemented AD8232 biopotential amplifier and battery-powered Bluetooth Low Energy wristband
- Trained recurrent neural network (RNN) model for hand gesture detection & hand pose estimation
- Awarded 2nd overall in Georgia Tech 2021 Idea-to-Prototype competition among 50+ teams

## **SKILLS**

Stacks: SOLIDWORKS, MATLAB, COMSOL, ROS, OpenCV, PyTorch, ONNX, Altium Designer, React, Django

**Concepts:** CAD, PCB Design, Computer Vision, Reinforcement Learning, Finite-Element Analysis, Data Analysis