# Sunho "Sunny" Park

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## **EDUCATION**

## Georgia Institute of Technology | Atlanta, GA

## B.S. in Computer Science | Overall GPA: 3.82/4.0 | Major GPA: 3.91/4.0

Threads: Info-Internetworks & Artificial Intelligence

Relevant Courses: NLP, AI, Machine Learning, Database Systems, Computer Vision, Computer Systems & Networking

# **PROFESSIONAL EXPERIENCE**

Lionobytes | AI Developer Intern - Remote

- Developed a voice-enabled RAG chatbot integrating client-specific databases, text, videos, PDFs, and APIs, achieving 92% query accuracy and reducing response times by 25%. Enhanced functionality with advanced conversational retrieval chains and custom prompt engineering, driving a 12% increase in CRM conversion rates.
- Built and deployed dynamic AI workflows using **Streamlit**, **FAISS**, **Whisper**, **PyMuPDF**, **LangChain**, **Sentence Transformers**, and **Anthropic ClaudeAI**, enabling video transcription, document parsing, and conversational retrieval.
- Designed a **flexible tagging system** for automated classification and cross-linking of diverse data sources, boosting data retrieval efficiency by **40%** and supporting seamless modular integration into enterprise CRM/ERP platforms.

## Georgia Tech EPIC Lab | Undergraduate Researcher

- Fine-tuned a **Temporal Convolutional Neural Network (TCN)** model for hip bio-torque estimation, achieving a **22.14% RMSE** reduction for stroke-specific torque prediction using synthetic IMU data.
- Optimized hyperparameter for TCN model, increasing temporal dependency modeling efficiency by 18%.
- Built a **Python-based clinical evaluation toolbox** for analyzing **multimodal sensor data** (IMU, EMG, ground reaction forces) collected from 20 stroke patients; *Third author for IEEE dataset paper submission scheduled for February 2025.*
- Developed a user-friendly web application, enabling researchers to upload and analyze their data with our toolbox.

## PROJECTS

# Adaptive Multi-Modal AI Framework with Fine-Tuned LLMs

- Engineered a scalable AI framework combining **Mixture of Experts (MoE)** architecture with fine-tuned models for multi-modal tasks, featuring a task classifier achieving **98.95% routing accuracy.**
- Implemented and fine-tuned specialized NLP models, including BART-large-cnn for summarization (30% ROUGE score improvement) and BERT-base for sentiment analysis (92.1% accuracy); significant improvement over baseline.

## Heart Failure Prediction ML Model

- Led a team of five in developing a machine learning model to predict heart disease risk, achieving accuracy of **89.33**% using **KNN** (scikit-learn), **Random Forest** (scikit-learn), and **Neural Networks** (PyTorch).
- Successfully integrated multiple datasets, enhancing **data processing efficiency** by **28**% through dimensionality reduction with PCA and stratified k-fold cross-validation.

## Dynamic Business Management Database System | Georgia Tech

- Designed a complete **MySQL** database with Workbench, implementing schema design, stored procedures & functions.
- Developed comprehensive features for **efficient data handling**, including order processing, customer management, and transaction handling to support a **multi-user environment** tailored to complex business scenarios.

## SKILLS

Languages: Python, Java, C, MySQL, PostgreSQL, JavaScript, Swift, C++, Assembly, MATLAB Frameworks: Flask, Streamlit, PyTorch, TensorFlow, LangChain, LangGraph, LlamaIndex, HuggingFace, FAISS, Numpy Tools: Docker, Git, PgAdmin, Xcode, Visual Studio Code, IntelliJ, MySQLWorkbench, Azure Cognitive Services, Whisper

## **Additional Projects & Awards**

Competitive Programming on DMOJ (2023-2024), GT President Undergraduate Research Award (Summer '24) 5 Consecutive Dean's List and Faculty Honors (2022-2024), Personal Website Development on Wix (2023-Present)

# AUG 2022 - DEC 2025

August 2024 - Present

August 2023 - Present

Aug 2024 - Dec 2024

May 2024 - Aug 2024

January 2024 - June 2024