

Andrew Cho

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EDUCATION

Boston University

Bachelor of Art, Computer Science

Boston, MA

May 2027

EXPERIENCE

Monitech

June 2022 – Sep 2022

Data Analyzer/Software Engineer Intern | Work Log

Busan, South Korea

- Built **Python** and **MATLAB** systems to analyze **30TB of time-series data** from welding quality assessments, improving analysis speed by **30%**.
- Developed scalable **computer vision pipeline** using **Python** and **TensorFlow** for defect detection in welding images, improving throughput by **10%**.
- Summarized findings from the dataset and visualized them for client meetings.
- Built Python and MATLAB educational materials for future interns. Summarized MATLAB coding syntax and AI toolbox usage for signal processing and data analysis.

Samsung DS Center

July 2024 – Aug 2024

Samsung Shining Star

Suwon, South Korea

- Worked with a team to come up with a new semiconductor product idea that could **detect a person's emotions** by analyzing their body fluids (sweat).
- Developed **Python/Flask** prototype for data validation and easy sensor integration, processing 500 readings/sec.
- Optimized code and built backend integrating **signal-processing algorithm (SVM)** for real-time inference in a wearable prototype.
- Studied the correlation between semiconductors, computer coding, and manufacturing processes.
- Calculated future commercialization potential and profitability.

PROJECTS

MP3 to Music Sheet | [Colab](#) | *Python, HT Demucs, pYIN, React*

Feb 2025 – Present

- Converted MP3 file to readable sheet music by researching source separation and pitch recognition as a team under the supervision of a Tufts Professor.
- Engineered audio separation and note detection pipelines for guitar duets using open-source libraries and APIs.

Document PDF to HTML | [GitHub](#) | *Python, Flask, Amazon S3, React, TypeScript*

May 2025 – Aug 2025

- Built full-stack PDF-to-HTML converter website using **Python-Flask, and React** to improve accessibility and design responsiveness.
- Built cloud-based document processing system using **AWS S3** for storage and **Textract OCR** for text recognition and classification.
- Deployed frontend with **Vercel** and backend with **Render.com**.

Andrew Cho's Room Web | [GitHub](#) | *Blender, Next.js, HTML, CSS*

May 2025 – July 2025

- Created portfolio using **Next.js** and **Blender**. Built responsive modal created by raycasting: used GSAP for animation and implemented cross-platform compatibility
- Used **Three.js** for 3D rendering. Increased performance **20%** by optimizations in code and 3D objects.

Eventful(Codepath) | [GitHub](#) | *Kotlin, XML, Back4App, SQL, Figma*

Feb 2022 – May 2022

- Led a team of 4 to develop **Eventbrite-style app**, allowing users to create, share, and manage local events such as parties and club meetings.
- Designed backend data models and integrated with front-end UI built in Figma; showcased app at hackathon.

TECHNICAL SKILLS

Coursework: Machine Learning, Data Science, Discrete Math, Linear Algebra, Computer Systems, Probability in Computing, Web Development, SQL Database

Developer Tools: Java, Python, C, SQL, JavaScript, HTML/CSS, XML, Kotlin, Android Studio, MATLAB, Git

Interests: Guitar(Electric & Acoustic), Clarinet, Music, Photography