

Yongjoon Kweon

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EDUCATION

Boston University

B.S. in Computer Engineering | Concentration in Machine Learning

May 2026
Boston, MA

- **GPA:** 3.86/4.00
- **Coursework:** Algorithms & Data Structures(C++): **A**, Software Engineering(Matlab & C++): **A**, Linear Algebra: **A**, Probability & Statistics: **A**, Discrete Mathematics: **A**.
- **Awards:** Dean's List F'23 and S'24

EXPERIENCE

Software Engineer - Hairolet LLC: Coding4All

Web Development | Start-Up | [Website](#)

Jan. 2024 – Present
St. Louis, MO / Remote

- Co-developed a free comprehensive Python course engaging over 60 students with quizzes, practice projects, and insights to enhance their programming skills while leading development in the newest C++ course.
- Created website and lesson design and interface using HTML within Squarespace for over 30 engagements per month to build and maintain the startup's website, ensuring a user-friendly and visually appealing online presence.

Stanford Machine Learning Specialization Certificate

Coursera certificate

Jun. 2024 – Aug. 2024
St. Louis, MO / Remote

- Achieved over a 20% reduction in error rates for housing predictions and 15 errors out of 5000 images in recognizing handwritten digits by utilizing TensorFlow and Python to develop and optimize neural network models.

Projects

Android Jump Game Full-Stack Project

Project Manager & Front-end Engineer | App Development | [Github](#) | [Youtube](#)

Aug. 2023 - Dec 2023
Boston, MA

- Collaborated on a full-stack Android game app utilizing Android Studios, C++, Git, and Java.
- Spearheaded UI/UX and front-end development to enhance the user experience for over 150 users by creating front and end screens, providing users with instructions, and ensuring page transitions between different game screens.
- Implemented features such as tilt-based controls and touch-jump mechanics to enhance gameplay and led testing efforts by identifying issues with platform clipping and terminal velocity.

Gym Equipment Tutorial using One Image

Personal Project | [Github](#) | [website](#) | Full-stack web development

May. 2024 – Aug. 2024
St. Louis, MO

- Developed a web-based and phone-accessible Gym Equipment Classifier using Heroku and Flask that allows users to upload images of gym machines, providing instant identification, usage instructions, and linked tutorial videos
- Designed to assist older gym-goers and newcomers in navigating and effectively using gym equipment.
- Used languages such as Python (Flask, OpenCV), JavaScript, and HTML/CSS, enhancing skills in full-stack development, image processing, API integration, and proficiency in Python libraries such as OpenCV and Pillow

Productivity Project Tool

Personal Project | [Github](#)

May. 2024 – Aug. 2024
St. Louis, MO

- Developed a productivity tracker utilizing HTML/CSS, Python, JavaScript, Heroku, and Flask featuring a Pomodoro timer and goal-setting functionalities to enhance user productivity by implementing real-time activity monitoring using Flask and a responsive system using Pushover and Twilio.

Smart Blue Light Desk Lamp

Embedded Systems | Circuit Build, Design & Development | [link](#) | [video](#)

Sept. 2023 – Dec. 2023
St. Louis, MO

- Developed Arduino Uno using C++ for a smart desk lamp for users with limited dexterity, integrating features in such as voice control, light sensor adjustments—ensuring less than 6500 lumens—and a user-friendly interface.
- Directed integration and testing of a light sensor, reducing blue light output by 99% and achieving precise automatic lamp brightness adjustment based on ambient light levels while keeping the relative white color.

Machine Learning Analysis of Global Crime Rates and Correlations

Data Analysis | Machine Learning | [link](#)

Aug. 2022 – Dec. 2022
St. Louis, MO

- Analyzed over 200,000 data points of global crime rates from 20 countries to identify trends and correlations with drug fatalities and unemployment rates using unsupervised learning algorithms—Matlab Classification Learner.
- Achieved a reduction of 30% in data inconsistencies by creating data cleaning and scrubbing algorithms, implementing machine learning models, and visualizing year-on-year crime rate changes through scatter plots

Technical Skills

Languages: C++, Python, Matlab, Java, Javascript, HTML/CSS, C, ROBOTC, Arduino Uno

Tools: OpenAI, Visual Studios, Android Studios, Tensorflow, Scikit-learn, Vex, Heroku, Flask, Twilio, Git, Github