

Julie Heesu Chung

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Education

Brown University

Graduating in May 2026

Sc.B. in Computer Science with a focus on Artificial Intelligence and Visual Computing [GPA: 4.0/4.0]

Providence, RI

Relevant Coursework: Computer Vision, Computer Networks, Computer Security, Computer Systems, Object-Oriented Programming, Program Design with Data Structures and Algorithms, Discrete Structures and Probability, Linear Algebra, Multivariable Calculus

Organizations and Certificates: Rewriting the Code, Society of Women Engineers, Visa Upskill Tech Pathway Program

Experience

Flexibly | Software Engineer Intern

May 2024 – Aug 2024

Web and Mobile App Development

Boston, MA

- Implemented full stack authentication feature for Flexibly's web and mobile app, task auto-classification feature, and RAG (Retrieval-Augmented Generation) search feature utilizing Java, TypeScript, React, Next.js, Swift, and Supabase

SPRINT|UTRA Research Award Program | Computer Science Researcher

Jan 2024 – Present

Reinforcement Learning and Computer Vision Research

Providence, RI

- Developing the facial control functionality of **Humanoid Robot** for Brown University School of Engineering that uses MediaPipe library and Convolutional Neural Networks to detect and learn human facial expressions
- Developed **COMET: Composite Objective Modeling for Enhanced Task-solving**, a system to control a drone using instructions given in natural language using open-source large language models (LLMs) and reinforcement learning environments in JAX

Full Stack@Brown | Director of Operations and Project Manager

Aug 2023 - Present

Lung Health Ambassadors Program (LHAP) RI

Providence, RI

- Invited experts from the tech industry to host on campus events, discussed and actualized project goals with the client and set up the project code base utilizing JavaScript, React, Next.js, and MongoDB

Brown University | Undergraduate Teaching Assistant

August 2023 - Present

Department of Computer Science

Providence, RI

- Working for CSCI 0330: Introduction to Computer Systems to lead office hours to teach the C language, run code reviews, and improve the stencil code and scripts running on Docker Container
- Worked for CSCI 0150: Introduction to Object-Oriented Programming to lead office hours and improve learning experience of students with Java and JavaFX, teach sessions of 25 students, and lead workshops with over 50 students in attendance

Projects

American Sign Language Translator Program

May 2024

- Developed a real-time American Sign Language Translator that takes in a live input stream and runs a pre-trained Convolutional Neural Network model to generate translations for English alphabets
- Collected training and testing data from Kaggle, trained the VGG16 model using Tensorflow, and ran manual and automated testing for the program on Google Colab

LockIn@Brown App

May 2024

- Developed a web app that displays a 3D map, shows ratings, and recommends local study spots for Brown University and Rhode Island School of Design students using Java, TypeScript, React, Mapbox, and Yelp API

Database Project

Dec 2023

- Developed a personalized database, capable of connecting servers and clients from localhost and storing information in a binary tree utilizing fine-grained locking, thread control, and signal control

Awards

Wolfram Award for Creativity at Hack@Brown 2023

- Developed a Python-based program called **AutoRoaster** that takes a picture of the user through the webcam and generates a roast or a compliment depending on the user's preference
- Utilized HuggingFace Image Captioning and open-source AI to generate comments depending on the image

Skills

Programming Languages: Java, Python, C, C++, Golang, JavaScript, TypeScript, Swift, HTML, CSS, Assembly

Technical Skills: Node.js, Next.js, React, Docker, Unix/Shell Scripting, Git, GitHub, Firebase, MongoDB, Supabase, Numpy, JAX, Tensorflow, Natural Language Processing, Figma, Photoshop, LaTeX, Microsoft Office Suite