Ray Kim

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EDUCATION

University Of Washington

Bothell, WA

BS Computer Science & Software Engineering GPA: 3.81

June 2021 - July 2023

EXPERIENCE

Haggett Hall Seattle, WA

Residential Community Standards Representative of Haggett People's Council

March 2019 - July 2020

- Increased student participation at dorm events by 120%
- Designated speaker at community living workshops with dozens of attendees
- Managed up to 10 eviction pleas and notices for tenants

Remote Tutor Kirkland, WA March 2021 - Present

Computer Science Tutor

- Analyzed and debugged JavaScript and Python code and provided feedback
- Organized tutoring environment to promote learning and productivity
- Taught various algorithms and data structures to those of 13-17 age range

Projects

Content-based Image Retrieval App Python, Tkinter, Docker, Pillow, Numpy

https://github.com/GoldenKimchee/CBIR-app

Python app that analyzes an image's RGB values then calculates the color intensity and scheme with the Manhattan Distance formula. • Utilizes relevance feedback for machine learning. • Reduced image analysis time by 80% by using numpy and caching methods.

Video Game API Java, SpringBoot, Azure, Hibernate, Postman, PostgreSQL

https://github.com/GoldenKimchee/Video-Game-API

REST API that fetches video game review data. • Worked with a scrum team to design a schema and improve query efficiency. • Developed using Java SpringBoot and Hibernate ORM. • Hosted PostgreSQL database on Microsoft Azure.

ChatMe HTML/CSS/JavaScript, Node.js, Express.js, Socket.io

https://github.com/GoldenKimchee/OpenChat

Fullstack responsive chat app using JavaScript frameworks. • Developed fully functional backend with Node.js, Express.js, and Socket.io. • Created robust front-end with CSS Grid/Flexbox to be responsive on all devices.

Video Shot Boundary Detection System

https://github.com/GoldenKimchee/Video-Shot-Boundary-Detection-System

App detects the start and end of each shot, identifying both cuts and gradual transition. • Displays shots in Tkinter UI, where each shot can be played. • Implements twin-comparison based mathematical approach to distinguish shots as cut or gradual transition. • Improved video processing by 40% with numpy, caching, and bitwise operations.

TECHNICAL SKILLS

Languages: Java, HTML/CSS/JavaScript, TypeScript, Python, C++, SQL

Frameworks/Libraries: CSS Grid/Flexbox, Spring, Hibernate, React.js, Node.js, Express.js, Tkinter

Tools: Git, Postman, Docker, Markdown, Heroku