RYAN KAI PIN KOH

Sophomore at University of California, Berkeley

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RELEVANT COURSEWORK

Bachelor of Arts, Computer Science | **GPA: 3.863**

Estimated Graduation: May 2022

August 2018 – Present

In Progress:

- CS161: Computer Security
- CS184: Computer Graphics & Imaging
- CS194-26: Image Manipulation, Computer Vision, & Computational Photography

Completed:

- CS61A: Structure & Interpretation of Computer Programs
- CS61B: Data Structures
- CS61C: Machine Structures
- CS70: Discrete Mathematics & Probability
- CS170: Efficient Algorithms & Intractable Programs
- CS188: Introduction to Artificial Intelligence
- CS370: Introduction to Teaching Computer Science
- EECS16A: Designing Information Devices & Systems I
- EECS16B: Designing Information Devices & Systems II

Associate's Degree, Mathematics

College of the Canyons

August 2012 – June 2015

- Classes taken concurrently with high school curriculum.

PROJECTS

Hybrid Images and Multiresolution Blending

- Aligned and merged high and low frequency representations of an image to create hybrid images in Python.
- Used a Laplacian Stack and Gaussian blurring of a mask to seamlessly "blend" images together.

Maze Adventure

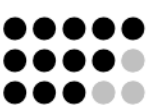
- Implemented and developed fully functional 2D tile-based world exploration game in Java.
- Built both interactive user interface elements as well as back-end pseudorandom world generation.

Rasterizer

- Implemented simple rasterizer capable of drawing triangles, supersampling, implementing transforms, and texture mapping with antialiasing.

SKILLS

Python, Java, C, LaTeX
Javascript, HTML, CSS, Scheme, RISC-V
Autodesk, CGDB, C++, Excel, SQL, Vim



TECHNICAL EXPERIENCE

Undergraduate Student Instructor

CS188: Introduction to Artificial Intelligence

January 2020 – Present

- Supporting weekly discussion sections in order to foster student understanding of AI, including topics such as reinforcement learning, Bayes Nets, and game trees.

EECS16B Coordinator

Computer Science Mentors

February 2019 – Present

- Leads weekly meetings with senior mentors to foster conceptual understanding of the material, discuss teaching techniques, and develop course content in LaTeX.
- Tutors 1.5 hour long sections for students in intermediate level circuitry and linear algebra concepts.
- Interfaces directly with EECS16B: Designing Information Devices & Systems II course staff to integrate current content into notes and worksheets for students.

Project Manager

Pioneers in Engineering

September 2018 – Present

- Currently co-leading Shepherd project for 2020 PIE Robotics Season, working on field control software to automate running the robotics competition.
- Responsible for the implementation of the scoreboard visual interface for the 2019 PIE Robotics Season.
- Front-end development in HTML, CSS, and Javascript. Back-end development in Python.

Academic Student Employee / Lab Assistant

EECS16A: Designing Information Devices & Systems I

August 2019 – December 2019

- Hands-on teaching and debugging of circuitry and Python code.

Academic Intern

CS61A: Structure & Interpretation of Computer Programs
CS61B: Data Structures

February 2019 – August 2019

- Assisted students with the conceptual understanding of course material, such as recursion and data structures.
- Engaged in 1-on-1 tutoring to help strengthen understanding of problem solving techniques and concepts.