

Wesley Klein

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EDUCATION

THE UNIVERSITY OF CALIFORNIA, BERKELEY

BA IN MATHEMATICS,
MINOR IN COMPUTER SCIENCE

Dec 2018 | Berkeley, CA
Cum. GPA: 3.63 / 4.0
Major GPA: 3.89 / 4.0

SADDLEBACK COMMUNITY COLLEGE

AS IN MATHEMATICS
May 2016 | Mission Viejo, CA
Cum. GPA: 3.94 / 4.0

COURSEWORK

Data Structures
Algorithms
Artificial Intelligence
Computer Architecture
Object-Oriented Programming
Computer Security
Discrete Mathematics
Calculus
Linear Algebra
Numerical Analysis
Optimization
Real Analysis
Complex Analysis
Abstract Algebra
Geometry

SKILLS

PROGRAMMING

Proficient:
Python • Java • C • Git • \LaTeX
Familiar:
C++ • HTML • CSS • Matlab

PROJECTS

VIRTUAL FIXTURES

Coursework | Personal

- Rogue-like cave exploration game developed in Java.
- Implemented dynamic GUI, responsive to the user's state within game.
- Used Bresenham's line algorithm to implement ray-casting which restricts visible objects to only those in the player's view.
- Breadth-first search used to execute a graphical transition between the two world states.

AI PACMAN

Coursework

- Implemented AI based solutions for variations of the Pacman game.
- Breadth-first search, depth-first search, greedy, and Dijkstra's algorithm used to implement search based solutions.

PROCESSING ART TOOL

Personal

- Web-based application for creating artwork.
- Developed in JavaScript using the P5.js library.
- Dynamic and responsive menu screen to select between creating artwork or viewing premade artwork.

BRANCHES: AN INTERACTIVE WEB/BOOK EXPERIENCE

Personal

- Illustrations are laser engraved into acrylic which is then embedded with various sensors attached to an Arduino microcontroller.
- Created a web server using Johnny-Five, Express, and socket.io. The server hosts a P5.js sketch which is responsive to the Arduino and its attached sensors embedded within the illustrations.

EXPERIENCE

GENERAL MATHEMATICS TUTOR

SADDLEBACK COMMUNITY COLLEGE
Sep 2015 - Aug 2016 | Mission Viejo, CA

- Tutored all levels of mathematics including: linear algebra, differential equations, calculus, and college algebra.

SUPPLEMENTAL MATHEMATICS INSTRUCTOR

SADDLEBACK COMMUNITY COLLEGE
Jan 2015 - Aug 2016 | Mission Viejo, CA

- Acted as student instructor for the following courses: first semester calculus, business calculus, and college algebra.