

## EDUCATION

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<b>Irvine, CA</b>	<b>University of California Irvine</b>	<b>Fall 2016 – Dec 2021</b>
<ul style="list-style-type: none"><li>• B.S. in Computer Science with a Minor in Mathematics</li><li>• <b>Relevant Coursework</b></li><li>• Neural Networks and Deep Learning, Machine Learning and Data-Mining, Deep Learning for medical images, Applications of Probability in Computer Science</li></ul>		

## EMPLOYMENT

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<b>Self Employed</b>	<b>Math Tutor</b>	<b>Fall 2017 – Summer 2018</b>
<ul style="list-style-type: none"><li>• Tutored students ranging from kindergarten to college, helped explain mathematical concepts in easy to understand language, broke down complex problems.</li><li>• Helped create goals, gave students quizzes and assessed progress, helped students build continuously increasing knowledge.</li></ul>		
<b>UC Irvine</b>	<b>Research Assistant</b>	<b>June 2019 – Dec 2019</b>
<ul style="list-style-type: none"><li>• Simulated Cancer cell growth using the Gillespie algorithm to generate a statistically correct trajectory (possible solution) of a stochastic equation in an efficient manner.</li><li>• Applied machine learning algorithms such as logistic regression, random forest, and SVM in sklearn to try and detect cancer cell growth early in patients.</li></ul>		

## PROJECTS

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<b>Pac Man (2017).</b>
<ul style="list-style-type: none"><li>• Recreated an identical version of the 2D Maze Game using Java Swing/AWT, implemented Dijkstra's shortest pathfinding algorithm for ghost navigation</li><li>• Applied object-oriented practices</li></ul>
<b>Minesweeper AI (2019).</b>
<ul style="list-style-type: none"><li>• Created an algorithm in C++ for consistently being able to solve 80% of beginner, 70% of medium, and 30% of expert worlds when ran 10,000 on each difficulty level.</li><li>• Used pattern-finding such as 1-1 and 1-2 patterns, applied concepts of linear algebra to find known bombs in unknown tiles, and applied probability when no known guaranteed move could be made.</li></ul>
<b>Search Engine (2019)</b>
<ul style="list-style-type: none"><li>• Created a web crawler in Python that would only crawl our UCI domain pages. Pruned and ranked the documents using porter stemming lemmatization, TF-IDF ranking, and cosine similarity</li><li>• Saved relevant Doc ID's and URLs into a database using MongoDB and created a GUI for multi-word searches using pySimpleGUI</li></ul>
<b>Capture The Flag app (2019)</b>
<ul style="list-style-type: none"><li>• Created a cross-platform (Android, IOS, Desktop) multiplayer capture the flag app in Java using the LibGdx engine to simulate physics. It is cross-platform compatible by using the framework Robo-VM</li><li>• The server is hosted on Google's Compute Engine, and the server to client relationship is implemented using the framework Krypton for efficient TCP and UDP client/server network communication</li></ul>

## EXTRACURRICULARS

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- Member of the Camping Club and the AI club at UCI