Stuart Wayland Researcher | Tutor | Software Developer

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♀ 132 Marine Ave, Aptos, CA 95003 i U.S. Citizen



Honors and Awards

Computer Science Undergraduate Research Showcase Speaker

2021-2022 Distinction in the Major Program, Department of Computer Science, UCSB

UCSB College of Letters and Science and College of Engineering Dean's Honors List 2019-2022

International Baccalaureate Diploma Recipient with Excellence 2018

2018 El Toro High School Top 20 Award (Ranked 9 of 624)



EDUCATION

September 2022

UNIVERSITY OF CALIFORNIA, Santa Cruz

- > M.S Computer Science
- > Pursuing a Masters in Computer Science in the Baskin School of Engineering at UC Santa Cruz

June 2022 September 2018

UNIVERSITY OF CALIFORNIA, Santa Barbara

- > B.S. Mathematics, Upper Division GPA: 3.53
 - > B.S. Computer Science, Upper Division GPA: 3.57
 - > Minor in Music, Overall GPA: 3.61
 - > Relevant Coursework: Markov Chains, Algorithms and Complexity, Data Structures, Application Development, Cryptography, Operating Systems, Probability and Applied Statistics, Data Science, Abstract Algebra, Number Theory, Real/Complex Analysis, Set Theory, Linear Algebra, Topography

June 2018 September 2014

EL TORO HIGH SCHOOL, Lake Forest, California

- > International Baccalaureate Diploma, AP Scholar, Model United Nations Participant
- > GPA: 4.8, Class Rank: 9, SAT 1540, ACT 34



PUBLICATIONS

UNDERGRADUATE THESIS

2022

Quantifying Gerrymandering with Simulated Annealing

Research completed for the Department of Computer Science Distinction in the Major Program at the University of California, Santa Barbara.

Markov Chains Physics Statistical Application R



PROFESSIONAL EXPERIENCE

June 2022

September 2021

UNDERGRADUATE RESEARCHER/SPEAKER, Gerrymandering Project UCSB

- > Researching applications of Markov Chain Monte Carlo techniques for evaluation of the fairness of enacted districting plans
- > Attended seminars and gave presentations on the methods and results of new techniques for political science analysis of voting
- > Worked with a group under Professor Eric Vigoda to generate algorithms for producing psuedorandom districting plans for geographic areas
- R python java ArcGIS

August 2020 June 2018

SOFTWARE/RESEARCH DEVELOPER, Encryptek LLC Lake Forest CA

- > Researching ideal regimes in which to deploy/extend their technology.
- > Development of driving program to offload SHA-256 computation in cypto-mining

C++ python jupyter notebooks.

June 2020 January 2020

Software Developer, Undergraduate Research Project Santa Barbara CA

APPLICATION AND DATABASE DESIGN

- > Front and back-end application design and maintenance using NodeJs and SpringBoot frameworks to construct, store, and display information in data bases.
- > Agile Programming Practices such as sprint planning, retrospectives, peer-programming, and user stories used to process and reflect upon user response.

Agile Java JavaScript Ruby Python NodeJS SpringBoot MongoDB.

Present August 2021

EMERGENCY MEDICAL TECHNICIAN, Orange County EMS California

> NREMT certified and licensed in the state of California as a practicing Emergency medical technician. Medical Training



TEACHING EXPERIENCE

January 2017 July 2017

Music Instructor, Kwala Music Lake Forest CA

- > Responsible for the scheduling and tutoring of beginner and novice piano and cello students.
- > Constructed incentives, created performing opportunities, and designed lesson plans.
- > Met weekly with students for a private 1 hour lesson.

Teaching Music Theory Private Tutoring Motivation

May 2015 August 2017

CELLO INSTRUCTOR/SOLOIST/PERFORMER, Orange County Cello Choir Tustin, California

- > Aid for Dr. Carter Dewberry's Music Theory class offered to the youth members for the OC Cello Choir.
- > Designed cooperative learning tasks for a group of 8-10 intermediate cello students aimed to provide engaging interaction with music theory material.

Teaching Music Theory Lesson Planning Interactive Group Work

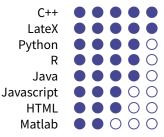
Present November 2016

PRIVATE TUTOR, El Toro High School/UCSB

- > Privately tutored students ranging from elementary school to lower division undergraduates.
- > Provided direction and conceptual aid in undergraduate material including differential equations, linear algebra, calculus, probability theory, basic programming, and applied statistics

Mathematics | Statistics | Computer Science | Organization | Learning Approaches | Study Techniques

PROGRAMMING LANGUAGES





- > Github
- > Overleaf
- > Jupyter Notebooks
- > RStudio
- > Visual Studio Code
- > Agile Software Developement
- > Microsoft Office
- > Mongo Data Bases

66 REFERENCES

Professor Eric Vigoda

Professor of Computer Science, UCSB

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Professor Andrew Moshier

Professor Of Mathematics and Computer Science, Chapman University

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- (714) 997-6628