

Stuart Wayland

Researcher | TA | Software Developer

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📍 132 Marine Ave, Aptos, CA 95003 🇺🇸 U.S. Citizen

🌟 HONORS AND AWARDS

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- 2022 Computer Science Undergraduate Research Showcase Speaker
 - 2021-2022 Distinction in the Major Program, Department of Computer Science, UCSB
 - 2019-2022 UCSB College of Letters and Science and College of Engineering Dean's Honors List
 - 2018 International Baccalaureate Diploma Recipient with Excellence

🎓 EDUCATION

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| Present
September 2022 | UNIVERSITY OF CALIFORNIA, Santa Cruz <ul style="list-style-type: none">> 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 <ul style="list-style-type: none">> 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 : <i>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</i> |

📖 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

🚌 TEACHING EXPERIENCE

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| Present
September 2022 | TEACHING ASSISTANT, University of California, Santa Cruz <ul style="list-style-type: none">> Served as a TA for a lower division statistics course at UCSC> Designed weekly assignments to test conceptual and practical understanding of course topics> Constructed lesson plans and presented weekly for two discussion sections of 40 students> facilitated grade inquiries and examinations through canvas <p>Statistics Teaching Lesson Planning Exam writing Canvas</p> |
| June 2022
September 2018 | PRIVATE TUTOR, University of California, Barbara <ul style="list-style-type: none">> Privately tutored lower division stem courses offered at UCSB> Provided conceptual aid in undergraduate material including differential equations, linear algebra, calculus, probability theory, basic programming, and applied statistics <p>Mathematics Statistics Computer Science Organization Learning Approaches Study Techniques</p> |

- January 2017 | **MUSIC INSTRUCTOR, Kwala Music Lake Forest CA**
 July 2017

 - > 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

- August 2017 | **CELLO INSTRUCTOR/SOLOIST/PERFORMER, Orange County Cello Choir Tustin, California**
 May 2015

 - > 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

PROFESSIONAL EXPERIENCE

- June 2022 | **UNDERGRADUATE RESEARCHER/SPEAKER, Gerrymandering Project UCSB**
 September 2021

 - > 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 | **SOFTWARE/RESEARCH DEVELOPER, Encryptek LLC Lake Forest CA**
 June 2018

 - > 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 | **Software Developer, UNDERGRADUATE RESEARCH PROJECT Santa Barbara CA**
 January 2020

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 | **EMERGENCY MEDICAL TECHNICIAN, Orange County EMS California**
 August 2021

 - > NREMT certified and licensed in the state of California as a practicing Emergency Medical Technician.

Emergency Response Medical Training Patient Interaction


PROGRAMMING LANGUAGES


C++	● ● ● ● ●
LateX	● ● ● ● ●
Python	● ● ● ● ○
R	● ● ● ● ○
Java	● ● ● ● ○
Javascript	● ● ● ○ ○
HTML	● ● ● ○ ○
Matlab	● ● ○ ○ ○

SKILLS

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

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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