



James Saslow

Physicist - Programmer - Data Scientist

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Skills

Programming: Python, C++, Wolfram Language, LaTeX, HTML & CSS

Software: JupyterLab, LabView, GitHub, Mathematica, LTSpice, Autodesk Inventor, Solidworks, Google Sheets

Projects

Programming Related Skills :

- Numerical methods for solving partial differential equations
- Advanced Regression Techniques
- Machine Learning Models & Neural Network Architecture
- Finite Element Analysis
- Signal Analysis
- Data Visualization

Professional Experience

Researcher | *San Jose State University* | San Jose, CA (Sept 2019 - Present)

- Performed independent research with two physics professors at my university
- Research #1: Development of Gaussian Mixture Models in Python
 - Detected spin clusters in high dimensional Ising Model PCA data
- Research #2: Researched the nature of Quantum Entanglement via Python simulations of 3-wave mixing
 - Gave a poster presentation at the College of Science Research Day

Supervisor | *Hollywood Beach Cafe* | Oxnard, CA (Jun 2018 - Present)

- Versatile & able to work every position in the restaurant
- Performed managerial duties - payroll, scheduling, customer service, etc
- Analyzed customer traffic trends and created effective scheduling methods that don't under/overstaff
- Performed Cost Analysis, Inventory, and Menu Engineering to effectively manage goods sold/purchased from vendors
 - Helped the company save costs in labor and ingredients while improving the quality of our product

Grader | *San Jose State University* | San Jose, CA (Jan - May 2021)

- Grader for a Mathematical Methods for Physics course during the 2021 spring semester
- Assisted students with problem sets in Zoom breakout rooms
- Gave thorough and effective feedback on homework that enhanced students' understanding of the topic

Researcher | *The Leadership Alliance, Brown University* | Providence, RI (Jun - Aug 2020)

- Performed professional research on colloidal membrane viruses during the COVID-19 epidemic
- Solved for the structure and function of a spherical colloidal membrane assembly
- Presented my research to the Virtual Leadership Alliance National Symposium
- Was Awarded the Leadership Alliance Professional Development Badge in recognition for my research

Education

Bachelors of Science in Physics (Aug 2018 - Dec 2022)

San Jose State University

- **Upper Division Major GPA:** 4.0 / Overall: 3.96
- **Relevant Coursework:** Solid State Physics, Electronics & Data Acquisition, Quantum Mechanics, Electrodynamics, Classical Mechanics, Partial Differential Equations, Thermodynamics
- **Awards:** Summa Cum Laude, President's Scholar, Accepted into the Society of Physics Students (SPS) for recognition of scholarly excellence
- **Certifications:** LabView Programming, Troubleshooting, & Environment