

# Jonathan Hirsch

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## EDUCATION

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### Oregon State University

*Bachelor of Science in Computer Science, GPA 3.9*

Corvallis, OR

*Expected December 2024*

### University of California, Santa Cruz

*Bachelor of Arts in Business Management Economics*

Santa Cruz, CA

*September 2018 - August 2020*

## EXPERIENCE

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### Jr. Staff Accountant

*Hyder Property and Co.*

July 2022 - September 2022

*San Marcos, CA*

- Conducted bank account reconciliations and analyzed cash flow for multiple properties, ensuring financial records accuracy.

### Viticulture Intern

*Advanced Viticulture*

April 2021 - October 2021

*Windsor, CA*

- Collected and managed comprehensive vineyard data, utilizing data analysis techniques to provide informed care recommendations for grapevines.

### Tech Ethics Review Board Intern

*University of California, Santa Cruz*

June 2020 - August 2020

*Santa Cruz, CA*

- Conducted in-depth research and analysis on the social and ethical implications of emerging technologies, contributing to the development of ethical frameworks.
- Collaborated closely with a diverse team to discuss and refine ethical considerations in technology development.
- Presented research findings at team meetings and academic events, fostering a deeper understanding of the importance of ethics in technology.

## PROJECTS

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### Musical Genre Recognition Model | *Python, PyTorch, pandas, NumPy, scikit-learn*

- Trained a machine learning model using PyTorch to classify music genres, achieving 93.6% accuracy on the testing data.
- Conducted thorough data preprocessing, leveraging Pandas, NumPy, and scikit-learn, to organize and prepare the dataset for optimal model performance.
- Implemented data cleaning and feature engineering techniques to handle missing information and irrelevant attributes, ensuring the model's ability to make accurate genre predictions.

### Video Game Log | *JavaScript, React, HTML/CSS, MongoDB, Express.js, Node.js*

- Designed and developed a user-friendly interface using React, enabling users to effortlessly log their favorite games and rate them.
- Implemented a robust RESTful API using Node.js and Express, facilitating seamless CRUD operations for game logging and management in conjunction with MongoDB.
- Leveraged Mongoose, an elegant object modeling tool for Node.js, to streamline data modeling, validation, and interaction with the MongoDB database.

### Checkers Game | *Python*

- Utilized advanced OOP concepts to develop a modular and extensible code architecture, promoting code reusability and maintainability.
- Implemented a visual component in the command line interface (CLI), providing an interactive experience for players to visualize the game board and make strategic moves.
- Ensured a bug-free experience through comprehensive unit testing.

## TECHNICAL SKILLS

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**Languages:** Python, JavaScript, HTML/CSS, MySQL, x86 Assembly, C.

**Frameworks:** Django, Flask, React, MongoDB, Node.js, Express.js, PyTorch.

**Developer Tools:** Git, VS Code, Visual Studio, PyCharm.

**Libraries:** pandas, NumPy, Matplotlib, scikit-learn.