

# Jorge Arambula

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## EDUCATION

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**University of California, Davis | Davis, CA**

*B.A. - Cognitive Science*

**Coursework:** Intro to Programming, Data Structures, Combinatorics, Artificial Intelligence, Computational Linguistics, Probability Theory, Computational Social Sciences, Analysis of Variance, Economics, Chicano Theoretical Perspectives

## SKILLS & TECHNICAL TOOLS

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**Languages:** Java, Python, JavaScript, C, HTML/CSS, Scheme

**Technologies:** Git, Pine, AWS, Jupyter Notebook, ReactJS, scikit-learn, Plotly, Dash, MATLAB

## EXPERIENCE

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**IT Helpdesk | MasTec**

*June 2022 - Present*

- Administered user accounts and ensured seamless user login and access to Office 365 applications, resolving login issues and maintaining account security.
- Simulated real-world cyber attacks, including phishing attacks, reducing successful phishing attempts by 30% and enhancing security awareness.
- Created detailed documentation and troubleshooting resources for setting up company resources for setting up company devices, applications, and key fobs, enhancing user self-service capabilities.

**Teaching Assistant | University of California, Davis**

*January 2022 - March 2022*

- Guided students in Python programming fundamentals, including problem-solving techniques and algorithm design, using personalized instructional methods to enhance their understanding and skills.
- Formulated curriculum and supervised students during coding labs (5 hours/week), providing direct support and feedback on assignments, projects, and challenges to ensure hands-on learning and skill development.

**Online Grocery Pickup | Walmart**

*May 2021 - January 2022*

- Operated digital device to accurately pick and stage items ordered by customers, performed thorough quality checks to ensure item accuracy and condition, and organized products in allocated areas for efficient processing.
- Dispensed completed orders to customers promptly, verifying customer identity to ensure accurate order fulfillment and handling any necessary substitutions with customer approval.

## PROJECTS

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**Poker AI Bot | Python**

- Developed a poker bot using PyAutoGUI to read game state and make strategic decisions based on opponent history.
- Implemented a bluffing algorithm inspired by GTO play, storing hand data in JSON and analyzing trends with Pandas.

**Budgeting App | Python**

- Built a personal finance tool that connects to bank accounts via Plaid API to generate spending insights.
- Utilized a Flask backend to store and analyze transactions, helping users create personalized budgets..

**2048 AI Solver | Python**

- Created an AI agent using Expectimax search and heuristics to optimize gameplay for 2048, achieving high success rates.
- Experimented with different weights to fine-tune strategy and performance.
- Optimized search depth to balance between computational efficiency and decision accuracy.

**To-Do List | Java**

- Developed a to-do list with a local JDBC database for offline functionality.
- Implemented cloud synchronization using a Spring Boot backend and PostgreSQL to enable multi-device access.