

# ALEXIS ALVAREZ

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Dedicated and ambitious software professional with a background in Computer Science & Psychology working individually as well as in group environments with cloud platforms such as AWS, database technologies like MySQL, programming languages such as Python, and Agile methodologies such as scrum and CI/CD.

## EDUCATION

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**San Francisco State University**

*B.S. Computer Science*

**August 2020 - May 2024**

*B.A. Psychology*

**August 2020 - May 2024**

**San Diego Community College District**

*Associate of Arts in Psychology*

**August 2017 - May 2020**

## PROJECTS AND EXPERIENCES

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### **Game of Thrones Knights API with Frontend**

Task: Developed a full-stack application with a scalable and serverless backend API alongside a responsive frontend, demonstrating proficiency in cloud computing, serverless architecture and modern web development.

- Engineered a serverless API using AWS SAM, Lambda, and DynamoDB, implementing CRUD operations for knight data.
- Leveraged AWS Lambda for compute and Amazon DynamoDB for NoSQL data storage, ensuring high scalability and low latency.
- Utilized AWS IAM roles and policies to manage fine-grained access control between services.
- Designed and developed a responsive React frontend with TypeScript, utilizing hooks and functional components.
- Utilized Git for version control and documented the project setup process in a comprehensive README.

### **SwiftSell (Full Stack E-Commerce App)**

- Spearheaded the design and deployment of a custom e-commerce platform using Python and Flask, tailoring a feature-rich marketplace exclusively for SFSU community transactions.
- Engineered robust backend infrastructure, leveraging MySQL for optimized data management and harnessing AWS services to craft scalable, high-performance hosting solutions.
- Implemented complex SQL queries and optimized database performance to support advanced search functionalities and transactional processes, resulting in improved user experience and operational efficiency within the e-commerce platform.
- Embraced Agile principles and practices, fostering a culture of flexibility, collaboration, and customer-centricity throughout the development lifecycle of the e-commerce app.

- Drove team collaboration through key contributions in strategy meetings, led peer code reviews, and shaped project planning sessions, crafting innovative solutions to technical roadblocks and expediting milestone achievement.

### S3 Uploader - CLI Tool for AWS S3 File Management

Task: Developed a command-line interface (CLI) tool to streamline uploading files to S3, providing clear progress indicators and performance metrics.

- Designed and implemented a Bash script integrating AWS CLI for efficient S3 file uploads.
- Implemented real-time progress tracking and performance metrics display
- Enhanced reliability and user experience with error handling and input validation
- Ensured system-wide accessibility through the strategic use of symbolic linking.
- Created comprehensive documentation including installation guide, usage examples, and troubleshooting tips.

### Discord Bot

- Developed a custom Discord bot utilizing Python programming language, integrating MySQL database for efficient data management and retrieval.
- Engineered a robust MySQL database schema tailored to the specific needs of the Discord bot, optimizing data organization and retrieval processes.
- Designed and programmed complex SQL queries, meticulously tailored to the needs of the Discord bot application

## TECHNICAL SKILLS

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**Languages:** Python, Java, C++, SQL, Bash Scripting JavaScript, HTML/CSS, R

**Frameworks:** React, Flask, Material-UI, Bootstrap

**Developer Tools:** Git, AWS, Linux (Development, Scripting, Server Management), VS Code

**Libraries:** pandas, NumPy, Matplotlib, pyTorch

**SWE Principles:** Agile Methodology, SCRUM, QA Testing, CI/CD, Code Review

**Core Competencies:** Software Development Lifecycle, Cloud Computing (AWS), Database Design and Schema Creation, Technical Documentation, API Design and Development (RESTful)

## ADDITIONAL EXPERIENCE

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### Virtual preschool Teacher

*EdVance Jumpstart*

August 2020 - December 2020

- Supported 4 preschool aged children virtually for Fall Semester.
- Facilitated 1 small group session with all 4 assigned children (approximately 1 hour) each week.
- Responsible for creating 1 (usually 2-3) pre-recorded video(s) per week to support learning from home for children in assigned group.
- Had unique opportunity to work on a team with peers and positively impact children's lives.