Gerardo Lopez Jr.

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WORK EXPERIENCE

AWS Full Stack Developer

Digital Learning Lab | Irvine, CA | Full Time   Jan. 2024 - Present
- Launched an AI prompt testing site with Retrieval-Augmented Generation by leveraging AWS resources such as Bedrock, S3 Buckets, and more within AWS Cloud Development Kit in Python.
- Optimized data extraction process in Amazon DynamoDB and cut costs by 60% using AWS Lambda.
- Integrated our external site into Canvas using LTI 1.3 protocol in Typescript and tested using Docker.
- Stress-tested potential bottlenecks for our AWS-hosted APIs and graphed results all in Python.

Data Analyst

CP-LEADS | Irvine, CA | Part Time   Jan. 2024 - Nov. 2024
- Analyzed user-messages locally using Topic Modeling in R and Sentiment Analysis in Python.
- Created visual models of user engagement using "Tidyverse" in R for custom graph designs.
- Published common themes for user-engagement in research papers with professors of UCI as co-authors.

Software Engineer Intern

CodeAI | Irvine, CA | Full Time   Jun. 2023 - Sep. 2023
- Led 3 junior Python developers in designing a language to create websites without HTML.
- Implemented unit testing for code quality assurance across all assisting developers in Github.
- Utilized Google's Drive API to dynamically aggregate Google Co-Lab notebooks into a collection.

INDEPENDENT CONTRACTOR

Mortgage Depository - Website   Oct. 2023 - Feb 2024
- Built a dynamic mortgage tracking website using Flask and MongoDB Atlas, featuring custom user logins, API integration, and deployment on Google Cloud Platform.

Storage Production Tracker - Website   Jun. 2022 - Jan. 2023
- Developed a Streamlit-based web app to help employees track and calculate orange production reliably, using Python for both frontend and backend.1

Python Student Tutor - In Person   Nov. 2021 - May 2023
- Independently tutored 3-5 UCI students at a time from beginner to intermediate Python, covering programming fundamentals, API usage, server protocols, and standard libraries.

EDUCATION

University of California, Irvine - Irvine, CA   Expected Jul. 2025

Bachelor of Science, Mathematics: Emphasis in AI in Education

Relevant Courses: Data Structures, API, Sockets and Protocols, Linear Algebra, Asymptotic Analysis, OOD.

CERTIFICATIONS

AWS Cloud Practitioner   Expected Jul. 2025
- Foundational AWS concepts, core services, best practices, and cloud architecture.

Git Certification   Apr. 2025
- Proven expertise in version control and collaborative development using Git.

CITI Program Certification   Mar. 2024
- Allows a person to work with user sensitive information.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript/TypeScript, HTML, CSS, SQL, R, Matlab

Frameworks/Libraries: NodeJS, React, Pandas, NumPy, Flask, Streamlit, SQLAlchemy

Cloud & DevOps: AWS CDK, Amplify, Lambda, DynamoDB, MongoDB S3, API Gateway, CodePipeline

Tools & Software: Docker, Git, GitHub, Postman, PyCharm, Jupyter, RStudio, SolidWorks, Wix, Weebly