

ELIJAH G. JACOB

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EDUCATION & COURSEWORK

University of California, Berkeley

May 2024

Bachelor of Arts in Economics, Data Science

- **Relevant coursework:** Data Structures & Algorithms, Machine Learning, Data Mining, Probability & Statistical methods
- **Activities:** Cal Aerospace SAE, Citadel Datathon Competition, International Students at Berkeley, BEACN Consulting

PROFESSIONAL EXPERIENCE

Xtillion

San Juan, Puerto Rico

Software Engineer

Jan 2025 – Present

- Built a holistic automated testing framework for a healthcare chatbot resulting in a 6x improvement for turnaround times
- Deployed the framework to one of the largest PBMs in the U.S leading to an accuracy increase up to the 95% level
- Engineered xGraph which builds relationships using Knowledge Graphs to map dependencies across a code repository
- Developed xUnit, a LangGraph-powered app that generates comprehensive unit tests for code using xGraph as context
- Reduced manual test-writing time by ~95% while maintaining 90% accuracy, deploying xUnit as part of the Xtillion OS

Colony Inc.

San Francisco, CA

Cofounder

May 2024 – Aug 2024

- Conducted 50+ user interviews to gain customer insights on use cases for agentic autonomous drones within industry
- Performed in-depth market analysis to assess competitor strengths, uncover market gaps, and validate product-market fit
- Led fundraising efforts, presenting to multiple Silicon Valley VC firms, resulting in interest from ten investors
- Forged partnerships within agriculture and construction industries to validate demand for digital twin pilots.

Acubed by Airbus

Sunnyvale, CA

Data Engineering Intern

May 2023 – Aug 2023

- Designed software within the V&V testing to quantify model performance quantification for an autonomous flight system
- Developed scalable telemetry pipelines that delivered real-time metrics and reliable data views, improving validation speed
- Optimized pipelines interactions with MongoDB to ensure clean, consistent, and queryable data for downstream analysis
- Collaborated with flight test engineers to define KPIs and dashboards, reducing ambiguity in system validation.

Al-Essa Med.

Kuwait City, Kuwait

Data Analyst Intern

May 2020 - August 2022

- Created Excel-based KPI visualizations using Power BI and Microsoft Excel for retail sales to optimize marketing strategy
- Cleaned and transformed 250,000+ records of sales data, using SQL, that were pulled from a relational Oracle database
- Assessed the business intelligence requirements by working directly with end-users to understand the most useful KPIs
- Presented dashboard to C-Suite to identify process inefficiencies and support operational development

PROJECTS

Automatic License Plate Reader (ALPR) - Python

Current

- Building an ALPR program for the Kuwait National Police after working on a Ministry of Interior contracting project
- Designed the predictive modeling system from scratch, utilizing computer vision techniques such as OpenCV, and EasyOCR
- Optimizing state-of-the-art YOLOv8 model to detect license plates across diverse lighting and environmental conditions
- Benchmarked model performance, producing statistical insights on error that enabled the choice of the most accurate model

SKILLS & INTERESTS

Languages: English (fluent), Malayalam (fluent), Spanish (professional), Arabic (medium)

Computer/Software/Programming: Python, MCP, LangSmith, LangGraph, AWS Solutions Architect, Neo4j, Cursor

Interests: Private Pilot License, Physical AI, Tennis, Learning Portuguese, Fitness and Running, Traveling South America