# Alexis Orellana

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## EDUCATION

**University of Houston**                                            **Expected December 2026**
Bachelor of Science, Computer Science, Minor in Mathematics                    Houston, TX

## EXPERIENCE

**Amazon Web Services (AWS)**                                          **May 2025 - Aug 2025**
Cloud Support Engineering Intern                                              Dallas, TX
- Automated the entire software delivery lifecycle by constructing a CI/CD pipeline with AWS CodePipeline, enabling 100% automated, zero-downtime deployments from GitHub to production.
- Developed and deployed a fault-tolerant web application using Application Load Balancer (ALB), Auto Scaling Groups (ASG), EC2, and CI/CD pipelines, achieving automated scaling and 99.9% uptime.
- Resolved complex technical challenges in a global cloud environment by leveraging internal AWS diagnostic tools and applying advanced troubleshooting methodologies to minimize customer-impacting downtime and ensure service reliability.

**University of Houston CougarCS**                                       **Dec 2025 - Present**
Director of Operations                                                        Houston, TX
- Recruited and managed a 4-person Operations Committee, delegating tasks for event setup, logistics, and inventory management to ensure seamless execution of club activities.
- Orchestrated the procurement and delivery of resources for large-scale events, coordinating directly with the Events Chair and VP of Finance to maintain budget compliance.
- Implemented strict inventory control protocols for the organization's storage, ensuring 100% accountability for club assets and supplies.

Operating Systems Workshop Director                                    **Sep 2024 - Nov 2025**
- Directed a monthly workshop series for 30+ students, designing and presenting curriculum on complex OS concepts (concurrency, memory management) that yielded a 15% increase in assessment scores.

## PROJECTS

**Serverless Metadata Extraction Pipeline - AWS Capstone**             **June 2025 - Aug 2025**
- Architected a fully Event-driven, serverless ETL pipeline handling file ingestion via S3, processing via Lambda, and NoSQL storage in DynamoDB, scaling to handle 10,0000 concurrent uploads.
- Implemented AWS Step Functions to handle error handling and workflow logic, ensuring reliability during data extraction processes.
- Engineered a secure, user-facing portal via API Gateway and Cognito, enabling authenticated file uploads and metadata retrieval with sub-second latency.

**Full-Stack Workshop Management System (React, Node.js, MySQL)**       **Jan 2025 - Mar 2025**
- Engineered a relational database schema to model complex, many-to-many relationships between makers, projects, and materials.
- Implemented advanced SQL triggers to automate critical business logic at the database level.
- Developed a secure role-based access control (RBAC) system using JWT, providing distinct" Admin" (full CRUD) and "Maker" (read/log) permissions that controlled both API endpoints and UI visibility.
- Built a RESTful API with complex, aggregated queries to generate dynamic reports, such as calculating the total material cost for any given project.

**Distributed Trading Platform (Java, Spring Boot, RabbitMQ)**              **October 2024**
- Decoupled market data ingestion from trade execution using RabbitMQ, preventing the application from blocking during high-volatility price spikes.
- Developed a backtesting simulation that iterates through historical CSV datasets to calculate the theoretical P&L (Profit & Loss) of strategies before live execution.
- Designed a PostgreSQL schema utilizing Java's BigDecimal class to handle currency storage, eliminating floating-point math errors in user balance updates.

## TECHNICAL SKILLS

- **Languages:** Java, Python, C++, MySQL, PostegreSQL, JavaScript
- **Cloud & DevOps:** AWS (EC2, Lambda, CloudFormation, CloudWatch, IAM), Docker, CI/CD, Git
- **Frameworks:** React, Node.js, Express.js
- **Certifications**: AWS Certified Solutions Architect Assoc., AWS Developer Assoc., AWS AI Practitioner, AWS Cloud Practitioner
- **Tools**: VS Code, Linux, Postman, Bash Scripting