JOSHUA MERCADO

Technical Program Manager | Cloud & AI Programs | Infrastructure Delivery
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Education

University of Florida **Gainesville, Florida**
Bachelor of Science in Computer Science | GPA: 4.0 / 4.0 December 2027

Relevant Coursework: Software Engineering; Data Structures & Algorithms; Database Systems; Operating Systems; Natural Language Processing; Artificial Intelligence & Heuristics; Data Science; Engineering Statistics

Professional Experience

Amazon Web Services (AWS) | Solutions Architect AI/ML Intern **Arlington, Virginia**
May 2026 - August 2026 Internship

- Architected and engineered the **Agent DataSphere MVP**, enabling agents to discover, retrieve, reason over, and act on enterprise data using RAG, semantic search, knowledge graphs, and orchestration.
- Built a custom **Orchestrator Agent** in **Python** using **Amazon Bedrock** and **Anthropic Claude** with tool calling, conversation memory, semantic retrieval, and deterministic fallback execution.
- Built **FastAPI** backend services, **REST APIs**, and a **React** web application for semantic search, knowledge graph management, document ingestion, generative AI for business intelligence reporting, and health monitoring.
- Built distributed RAG and semantic indexing pipelines with **S3 Vector Stores** and metadata catalogs.
- Designed and implemented **AWS Neptune** knowledge graph architectures supporting multi-hop reasoning, agent memory, contextual retrieval, and enterprise AI workflows.
- Developed **MCP** and **A2A** integrations connecting AI agents, enterprise applications, APIs, and distributed data platforms.
- Containerized **FastAPI** and **React** services with **Docker**, stored images in **Amazon ECR**, and deployed to **Amazon ECS** on **AWS Fargate** with **CloudWatch** logging and monitoring.

UF Health | Technical Project Manager **Gainesville, Florida**
December 2024 - May 2026 Full-time

- Led large-scale infrastructure programs across **100+ facilities** using Agile in a 24/7 mission-critical healthcare environment.
- Drove infrastructure strategy for new facilities, expansions, and mergers and acquisitions, coordinating migrations of networks, devices, systems, and data to UF Health standards.
- Managed concurrent infrastructure programs with budgets ranging from **$1M to $20M**, tracking scope, milestones, dependencies, KPIs, risks, and executive status.
- Led the enterprise **Zebra Modernization Program**, standardizing **2,500+** mobile devices on a unified OS, application stack, security baseline, and MDM platform.
- Directed cross-functional teams across engineering, security, networking, AV, facilities, and clinical operations while maintaining **HIPAA** and information-security compliance.
- Provided **people leadership** to engineers, specialists, and technical managers, assigning work based on project scope, skill alignment, and operational priority.

Lantern Games Studio | Founder & Lead Software Engineer **Florida, United States**
January 2026 - Present Self-employed

- Founded a software studio and own **product strategy**, **roadmap**, budgeting, production priorities, and release planning for **Game Shop Simulator**.
- Onboard and lead a **cross-functional contract team** of engineers, artists, and designers, aligning technical execution with product milestones and key decisions.
- Manage the full **software development lifecycle** using GitHub source control, technical documentation, testing priorities, and release planning while remaining hands-on in **C#** and **Unity 6**.

OnSpot Dermatology | Technical Program Manager **Orlando, Florida**
July 2024 - November 2024 Full-time

- Served as the company's first internal technical manager at a fast-growing healthcare startup, translating business and clinical needs into infrastructure, security, and SaaS **roadmaps** across **10+ sites**.
- Owned end-to-end technical programs from requirements gathering and scope definition through implementation, validation, rollout, and operational handoff.
- Managed a **$1M IT budget**, negotiated vendor contracts, and achieved **20% cost savings** while improving systems reliability.
- Built and maintained project plans in **Smartsheet and Jira**, tracking milestones, dependencies, risks, KPIs, release timelines, and stakeholder status across concurrent initiatives.
- Directed cross-functional delivery across engineering, clinical operations, security, vendors, facilities, and leadership, resolving blockers and aligning competing priorities.

OnSpot Dermatology | Network & Systems Engineer **Orlando, Florida**
June 2023 - July 2024 Full-time

- Managed IT systems and network operations across **10+ clinics**, labs, and surgical centers.
- Deployed and supported production network infrastructure including **HPE/Aruba** switching, firewalls, routers, load balancers, and Cradlepoint dual-carrier ISP failover.
- Eliminated **100%** of manual work in targeted network and IT workflows using **Python**, **JavaScript**, and **Node.js** automation.
- Built **API integrations** and Jira Service Management automations, accelerating triage and resolution by **50%**.
- Implemented and managed **Jamf Pro MDM**, enabling secure Apple device deployment with zero-touch onboarding.
- Led the secure migration of years of critical data to a new platform.

Florida Department of Transportation | Technical Support Engineer II (Contract) **Orlando, Florida**
June 2022 - June 2023 Full-time

- Led **150 SpaceX Starlink deployments** during Hurricanes Ian and Nicole, restoring critical communications in impacted areas.
- Supported enterprise infrastructure projects including **VMware ESXi**, Active Directory, VM provisioning, recovery, and the SCCM-to-MECM migration in a **10,000+** user environment.
- Automated workflows with **PowerShell**, increasing departmental efficiency by **50%**+; maintained **100%** ticketing SLA compliance and trained Level 1 and Level 2 technicians.

Technical Skills

Project & Program Management: Agile methodologies, Scrum, SDLC, risk management, cross-functional team leadership, technical product management, product strategy, roadmap planning, requirements gathering, scope management, milestones, dependencies, KPIs, release planning, stakeholder management, vendor management, budgeting, change management

Program Tools: Jira, ServiceNow, Smartsheet, Monday.com, Asana, Confluence, Microsoft 365, SharePoint

Programming: Python, C#, Java, C++, JavaScript, TypeScript, SQL, Go, Rust, Bash, PowerShell, Node.js, REST APIs, GraphQL

Frameworks & Platforms: FastAPI, React, Unity 6, URP, Netcode for GameObjects

AI/ML Engineering: Agentic AI, LLM agents, tool calling, Amazon Bedrock, Anthropic Claude, OpenAI GPT, Google Gemini, RAG (retrieval-augmented generation), semantic search, knowledge graphs, vector stores, MCP, A2A, NVIDIA CUDA

Data Engineering: Snowflake, SQL, ETL/ELT, data pipelines, Big Data, data warehousing, data modeling, dimensional modeling, star schemas, data quality, data reconciliation, semi-structured data/JSON, PostgreSQL, MySQL, SQL Server, MongoDB, DynamoDB, Redis

Cloud & DevOps: AWS, Microsoft Azure, Google Cloud, Docker, Kubernetes, ECS Fargate, ECR, Terraform, CloudFormation, IAM, CI/CD, Jenkins, Ansible, Git, GitHub, distributed systems

Developer Tools: OpenAI Codex, Claude Code, GitHub, GitLab, VS Code

Observability & BI: Datadog, Prometheus, Grafana, Splunk, CloudWatch, Power BI, Tableau

Infrastructure & Networking: Linux, Windows Server, VMware, HPE/Aruba, Cisco networking, routing and switching, VLANs, TCP/IP, DNS, DHCP, VPN, firewalls, load balancers

Security & Compliance: IAM, RBAC, Okta, CyberArk, HIPAA, ISO 27001, SOC 2, PCI DSS

Certifications

Project Management Professional (PMP)® - Project Management Institute
AWS Solutions Architect - Professional | AWS Solutions Architect - Associate |
AWS Machine Learning Engineer - Associate | AWS Developer - Associate |
AWS AI Practitioner | AWS Cloud Practitioner
CompTIA Security+ CE | CompTIA Network+ CE
Red Hat Certified System Administrator (RHCSA)
Microsoft Azure Fundamentals | Microsoft Azure Data Fundamentals