

MICHAEL VALDERRAMA

Senior Engineering Program Manager | AI Agent Architecture, Software and Hardware | USAF Veteran

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PROFESSIONAL SUMMARY

Senior Engineering Program Manager with 20+ years across software and hardware, now building and measuring agentic systems at [BucketBranch](http://www.bucketbranch.ai), an independent research lab and consulting practice: published the [Agent Efficiency Quotient \(AEQ\)](#) benchmark, shipped [VeteransGPT](#), and architects [NVIDIA](#) H100/A100 clusters on the [Bittensor](#) network. At Apple, ran beta releases of iOS, macOS, watchOS, and tvOS out to 36 million developers, the special releases for new silicon introduction, and the milestones between Apple's AI/ML teams and outside partners. Executed 100 storage NPI projects through global contract manufacturers at Micron, carried the Wyse thin-client line through Dell's ~\$1B acquisition, and delivered Intel processor and chipset programs into HP, Dell, IBM, Acer, and Apple, including the Mac's move onto Intel silicon. USAF veteran, TS/SCI (inactive, eligible for reinstatement). Finishing an M.S. in Applied AI and Data Science at the University of San Diego.

TECHNICAL SKILLS

Client Engagement & Solutioning: Solution Design, Discovery-to-SOW Consulting, Proposal & Effort Estimation, Tiered Fixed-Fee Pricing, Executive Presentations, Account Relationship Management, Stakeholder Engagement

Program Management: AI-Augmented Program Management, Agile/Scrum, Release Management, Vendor & Contract Negotiation, Global Delivery & Distributed Team Coordination

Technical: Python, [MCP \(Model Context Protocol\)](#), [Jenkins](#) CI/CD, [NVIDIA](#) GPU Cluster Management (H100, A100), [Atlassian Jira & Confluence](#), IBM PLM, Siemens PLM, MLOps

AI/ML Tools: [Claude](#), [ChatGPT](#), [OpenAI API](#) Integration, [Bittensor/TAO Network](#), LLM Integration, RAG Pipelines, Agentic Workflow Orchestration

AI RESEARCH & DEVELOPMENT

2024 to Present

- [Agent Efficiency Quotient \(AEQ\)](#), a benchmarking framework for the economic efficiency of an agent: business value per token, attributed across the model, the prompt, and the orchestration layer. Specification and white paper are published, together with the run records they were derived from.
bucketbranch.ai/framework/aeq/ | bucketbranch.ai/papers/cost-of-a-question/
- [AgentSaasy](#), an enterprise agent proof of concept built as a reusable framework, running at \$0.0009 per query. Seven domain tools, 27 automated tests, and prompts managed as versioned YAML with a token budget enforced per call.
bucketbranch.ai/projects/agentsaasy/ | bucketbranch.ai/case-studies/agentsaasy-eam/
- [VeteransGPT](#), a custom GPT published in the [ChatGPT GPT store](#), built to take a veteran from a medical diagnosis to the criteria the VA actually decides the claim against. Diagnostic codes are mapped to their section of the rating schedule in 38 CFR Part 4, and answers come from the regulation text itself, so a veteran gets the section a rating turns on rather than a paraphrase of it.
chatgpt.com/g/g-68f6acf82cd481919250b052dc4e6f62-va-disability-claims-assistant-veteransgpt

PROFESSIONAL EXPERIENCE

Independent Consultant - AI Infrastructure & Solutions

[BucketBranch](#) ([Bittensor](#) AI infrastructure consulting) | Dec 2024 to Present

- Runs the client engagement end to end: discovery, solution design, tiered fixed-fee proposals and effort estimation, SOWs, change orders, delivery.
- Architects GPU cluster deployments on [NVIDIA](#) H100 and A100 for distributed machine learning workloads on the [Bittensor](#) network.
- Designs the cluster management and networking for multi-node operations, including the high-availability configuration that keeps them running continuously.

Technical Program Manager - SWE Programs Office*Apple, Inc. | 2018 to 2024*

- Ran software release management for iOS, macOS, watchOS and tvOS, from integration and OS builds through the betas that went out to 36 million developers, coordinating 15+ engineering teams and roughly 3,000 engineers.
- Coordinated the work between Apple's AI/ML teams and outside partners on systemwide AI features, including Siri, Writing Tools, and Private Cloud Compute.
- Built a risk process for the beta cycles that surfaced and closed 2,000+ issues before they reached a shipping release.
- Automated configuration management and build steps, taking 25% off release cycle time and 30% off build and integration time.

Senior Program Manager - Consumer Storage & Software Products | Embedded Business Unit*Micron, Inc. | 2013 to 2018*

- Ran the removable storage PMO across both software and hardware, delivering 100 NPI projects through global vendors and contract manufacturers.
- Rebuilt the product lifecycle process, gathering requirements from several divisions and getting 13+ teams onto one definition, on IBM and Siemens PLM.
- Opened the industrial IoT SSD and memory line into factory automation, medical equipment, and consumer electronics accounts.
- Led development of the [GoPro Quik Key](#) iOS app and the micro-SD reader line (Lightning, Micro-USB, USB-C) under the Apple MFi program.

Senior Product Manager - Cloud Client Computing*Dell, Inc. (acquired Wyse Technology) | 2009 to 2013*

- Carried the Wyse product portfolio through Dell's ~\$1B acquisition of the company, keeping the roadmap and the existing customer commitments intact through the transition.
- Product manager for the thin-client platforms behind large enterprise deployments, including a ~30,000-seat rollout at JPMorgan.
- Owned the Linux thin-client line: 8 platforms across several form factors, on Ubuntu, SUSE Linux Enterprise, and Red Hat Enterprise Linux.

Technical Program Manager - Processor & Chipset Products*Intel Corporation | 1998 to 2009*

- Primary program contact for 5 OEM accounts (HP, Dell, IBM/Lenovo, Acer, Apple), holding the quarterly release alignment and working the risks that threatened their dates.
- On the Intel-Apple team from 2005 to 2009, bringing Apple onto the Intel silicon family as the Mac line moved off PowerPC and became a platform account like the other OEMs.
- Built a company-wide automation workflow for build, integration, and release, taking 30% off cycle time across 12 products.
- Ran 15 software programs and 50+ people, with 85% delivered on time and on budget.

United States Air Force | 1993 to 1998**EDUCATION**

M.S. Applied Artificial Intelligence / Data Science - University of San Diego (In Progress)**M.S. Management Information Systems** - UC Davis**M.S. Software Engineering** - National University**B.S. Computer Science** - National University