

JEREMY D. PRETTY
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 PROJECT / PROGRAM MANAGEMENT • Gaming • SOFTWARE

SUMMARY

As an experienced Project and Program Manager, I bring over a decade of expertise in managing IT and Software programs for diverse organizations. Skilled in planning and executing a range of projects, I consistently meet stakeholder objectives on time and within budget. My strong communication skills enable effective leadership of multifunctional teams. I leverage industry best practices and lessons learned to optimize resource management, streamline processes, and achieve operational and performance excellence.

 AREAS OF EXPERTISE

Project Management
 C/C++/C#/Python
 Software Test / Development
 Training & Development

Program Management
 Machine Learning
 Network / Systems Integration
 Strategic Analysis & Planning

IT / Technical Management
 Quality Assurance
 Team Leadership / Mentor
 Stakeholder Engagement

CAREER HISTORY

Director of Project Management and Quality Assurance, PMAT Inc, Remote**2024***Project Manager and QA Lead Professional for United States Navy Contracts*

- **Provide strategic leadership** for the Project Management and Quality Assurance divisions, directing enterprise-wide initiatives supporting multiple U.S. Navy contracts and federal programs exceeding **\$500M in total value**.
- **Established and currently lead** the company's Quality Assurance division, creating scalable frameworks, performance metrics, and audit-ready documentation to ensure federal compliance and delivery excellence.
- **Oversaw transformation of project governance**, implementing standardized methodologies, risk frameworks, and cross-functional dashboards that improved on-time delivery by **X%** (insert measurable metric if available).
- **Manage and mentor** project managers and QA professionals across multiple programs, fostering a high-performance culture focused on proactive risk management, accountability, and continuous improvement.
- **Serve as primary liaison** between corporate leadership, government stakeholders, and technical teams, ensuring alignment of cost, schedule, and performance metrics with contract deliverables.
- **Implemented integrated project tracking and QA systems**, improving visibility and data-driven decision-making for leadership and contract officers.
- **Championed continuous improvement initiatives**, leading to measurable gains in efficiency, audit readiness, and customer satisfaction across all active programs.

Founder, TMFPRETTY, LLC, Remote**2024***Certified Veteran-Owned Small Business (VOSB), Service-Disabled Veteran-Owned Small Business (SDVOSB)*

- Leads company vision, strategy, and operations, with additional responsibilities in financial oversight and technical architecture to drive innovation in a lean startup environment.
- Designed, built, and deployed a full-stack enterprise SaaS platform from scratch for project management, quality assurance, HR, business development, and systems engineering (<https://caruso-platform.com/>)
- Architected a multi-tenant system with row-level security, role-based access control, and tenant isolation supporting multiple concurrent customer organizations
- Integrated with AWS Marketplace for SaaS contract-based subscriptions, including token-based customer registration, entitlement management, SNS webhook lifecycle handling, and automated seat enforcement

- Built a real-time collaboration platform using React, TypeScript, Node.js/Express, and PostgreSQL (AWS RDS), deployed on AWS EC2 with blue/green deployments
- Implemented PMBOK-aligned project management tools including Gantt scheduling, risk registers, earned value management, what-if scenario analysis, milestone tracking, and sprint management
- Developed a complete QA management suite with test case authoring, test cycle execution, defect tracking, traceability matrices, and evidence pack generation for JITC certification
- Engineered security infrastructure including JWT authentication with sliding sessions, CSRF protection, rate limiting, security audit logging, and proactive token refresh mechanisms
- Created CI/CD pipelines using AWS Systems Manager for zero-downtime deployments with automated database migrations
- Oversees all AI/ML development pipelines for a 2D isometric action RPG, including procedural content generation, enemy behavior modeling, visual anomaly detection, and adaptive difficulty systems.
- Architected and implemented 265+ runtime scripts (~160K lines) across 40+ interconnected systems including combat, AI, procedural world generation, dialogue, quests, crafting, housing, factions, and multiplayer networking.
- Built 34 custom Unity Editor tools automating the full development pipeline from asset generation to multi-platform deployment.
- Manages business operations and builds scalable infrastructure to support team growth and product delivery.
- Designed and maintained AI-driven systems to enhance player immersion, including real-time narrative response engines and autonomous game testing agents.
- Produced and edited promotional content to highlight project milestones and communicate value to stakeholders.
- TMFPRETTY is committed to innovation, ethics, and high-performance solutions that serve both entertainment and mission-critical domains.
- Architected companies internal multi-agent AI operating system, enabling function-specific agents to support engineering execution, operational control, trading research workflows, and organizational learning.
- Led the design of a human-supervised AI agent ecosystem with explicit room governance, workflow routing, approval logic, and safety constraints across Discord-based internal operations.
- Established the operating model for production-oriented AI agents at TMFPRETTY, balancing autonomy, reliability, auditability, and human review across execution, analysis, and learning workflows.

Project Manager / Senior Test Lead, Blizzard Entertainment – Austin, TX

2021 – 2024

The world needs heroes! Responsible for leading a team of testers and partnering with other teams to drive quality

- **Leadership and Team Management:** Directed a diverse team of 12 full-time employees and 50 contractors, focusing on recruitment, coaching, and performance support to drive team success. Fostered leadership development across the department for effective succession planning, and championed a culture of excellence and continuous improvement.
- **Technical Oversight and Innovation:** Oversaw Graphics, Performance, Online, Game Engine, and Data Science teams. Innovated by developing a Natural Language Processing application for efficient bug triage and prioritization, enhancing the development process.
- **Python and Natural Language Toolkit (NLTK):** Developed and enhanced an automated bug triage system using Python and the Natural Language Toolkit, transforming the process from basic keyword matching to advanced context-aware analysis, resulting in a 75% improvement in triage accuracy and efficiency, while eliminating 80 daily manhours in JIRA bug triaging meetings.
- **In-Process AI-Powered Visual Anomaly Detection in Video Game Environments:** Spearheaded the development of a Python-based tool using OpenCV and TensorFlow to detect color discrepancies in game graphics. Implemented real-time screen monitoring, automated anomaly detection with machine learning, and precise documentation of issues with annotated screenshots. Enhanced skills in AI, real-time data processing, and automated QA tools in gaming. Project was ongoing for potential for bug tracking integration.

- **Quality Assurance and Risk Management:** Partnered with development leadership to deliver high-value quality-related services, maintaining accountability for team output. Proactively identified project risks, implementing comprehensive risk management strategies to ensure project success.
- **Project Management and Delivery:** Managed testing schedules, ensuring the timely delivery of high-quality products. Led test development, estimation, planning, execution, reporting, and closure, with a keen focus on project risks and quality metrics.
- **Collaboration and Best Practices Advocacy:** Coordinated with regional teams to enhance cross-functional collaboration and effectiveness. Influenced software development best practices and customer experience, driving positive impacts on product quality.
- **Data-Driven Analysis and Reporting:** Created and managed metrics to monitor product and team quality, enabling data-driven decision-making. Analyzed product quality, usability, and system limitations, providing valuable insights to stakeholders.

ADJUNCT PROFESSOR, University of Arizona Global Campus

2024 - PRESENT

Academic professional helping ensures high quality of research and mentorship.

- Course Instructor – INF 336 – Project Procurement Management
- Course Instructor – PRM 300 – Introduction to Project Management
- Course Instructor – PRM 337 – Integrated Cost and Schedule Control
- Course Instructor – PRM 400 – Project Risk Management
- Course Instructor – BUS 611 – Project Planning and Management

ADJUNCT PROFESSOR, Grand Canyon University

2024 - PRESENT

Academic professional helping ensures high quality of research and mentorship. College of Engineering and Technology

- Course Instructor – CST 545 – Programming for Artificial Intelligence
- Course Instructor – CST 570 – Machine Learning for Computer Science
- Course Instructor – CST 580 – Artificial Intelligence
- Course Instructor – CST 590 – Computer Science Capstone
- Course Instructor – DSC 510 – Advanced Probability and Statistics
- Subject Matter Expert – AIT 224 – Image Processing and Computer Vision
- Subject Matter Expert – AIT 406 – Deep Learning for Computer Vision
- Subject Matter Expert – AIT 450 – Ethics of AI
- Subject Matter Expert – AIT 560 – Computer Vision
- Subject Matter Expert – GDT 315 – Multiplayer Game Development
- Subject Matter Expert – GMC 451 – Game Creation 3
- Subject Matter Expert – GMC 452 – Game Creation 4
- Peer Reviewer – AIT 206 – Reinforcement Learning
- Peer Reviewer – AIT 226 – Feature Extraction and Image Representation
- Peer Reviewer – GDT 310 – Game Security and Anti-Cheat Technology
- Peer Reviewer – GDT 320 – Game Physics and Simulation

ADJUNCT PROFESSOR, CAPITOL TECHNOLOGY UNIVERSITY

2020 - PRESENT

Academic professional helping ensures high quality of research and mentorship.

- Doctoral Chair
- Doctoral Committee member
- Course Instructor: PRM 500 – Becoming the Successful Product Manager
- Course Instructor: PRM 520 – New Product Process
- Course Instructor: PRM 530 – Product Management Tools and Metrics
- Course Instructor: PRM 540 – Leveraging Expert Systems, Big Data, and Business Analytics for Product Management
- Course Instructor: PRM-600- Design and Developing Great Products
- Course Instructor: PRM-610- Managing the Life of a Product

ADJUNCT PROFESSOR, Southern New Hampshire University

2022 - PRESENT

Academic professional helping ensures high quality of research and mentorship. Quantitative Studies & Operations Management

- Distinguished Online Teaching Award, Business Programs, 2025

- Outstanding Educator Award, 2025
- Outstanding Educator Award, 2024
- Course Instructor: QSO-340 – Project Management
- Course Instructor: QSO-345 – Project Management for CAPM Certification
- Course Instructor: QSO-349 – Project Contracting and Procurement
- Course Instructor: QSO-355 – Resource Estimating and Scheduling
- Course Instructor: QSO-420 – Integrated Cost and Schedule Control
- Course Instructor: QSO-435 – Adaptive Project Management
- Course Instructor: QSO-440 – Topics in Project Management
- Course Instructor: QSO-640 – Project Management
- Course Instructor: QSO-710 – Internship in Operations/Project Management

SENIOR TECHNICAL PROGRAM MANAGER, AIR FORCE CIVIL SERVICE – RANDOLPH AFB, TX **2019 – 2021**

Program management of the A1 Virtual Data Center, working with contractors and government partners to ensure successful migration of applications from on-premises datacenter to the AWS GovCloud.

- **Cost Reduction and Efficiency:** Implemented a new call center solution, resulting in an annual savings of over \$500K for the Air Force, demonstrating effective project management and cost-saving strategies.
- **Contract and Financial Management:** Served as an Alternate Contracting Officer Representative for a multi-year, \$38 million Fixed-Price contract, showcasing skills in contract oversight and fiscal responsibility.
- **Strategic Planning and Reporting:** Acted as a Strategic Planning Specialist and was responsible for delivering monthly financial reports to government stakeholders, ensuring that the Integrated Master Schedule was consistently updated and briefed, highlighting expertise in strategic planning and stakeholder communication.

Software Engineer, Game Create Repeat (Unpaid, volunteer with world-wide team) **2021- 2021**

Free to play vertical slice game releasing on Steam in 2022, Fireflies and Figments: A Willow's Journey, Unity Engine, <https://firefliesandfigments.com/>

- Working fully remote with team members worldwide
- Responsible for Fear/Wonder Meter UI programming
- Artificial Intelligence programming

Senior PROJECT MANAGER, CDO TECHNOLOGIES – RANDOLPH AFB, TX **2017 – 2019**

Hands-on leader to lead DevOps practices and teams, sets process and practices within the DevOps team and shared across the Engineering organization.

IT PROJECT MANAGER, BTAS – RANDOLPH AFB, TX **2017 – 2017**

Manages migrations and IT specific initiatives, executing activities to retire / migrate all hosted programs / systems that reside at data centers, and amend / update transition roadmaps.

PROGRAM MANAGER, P3I INC. – SAN ANTONIO, TX **2016 – 2017**

Program Manager at Air Force Electronic Key Management System PMO, as tactical lead for Air Force Simple Key Loader (SKL) Project to extend the lifespan of the system until a replacement load device is developed and fielded.

SYSTEM ADMINISTRATOR 2 / SYSTEMS TEST ENGINEER 2 / SCRUM MASTER
NORTHROP GRUMMAN – VARIOUS LOCATIONS **2013 – 2016**

Performed in technical leadership roles, facilitating sprint planning, daily scrums, retrospectives, stakeholder meetings, and software demonstrations.

UNITED STATES AIR FORCE

ASSOCIATE PROGRAM MANAGER – ALTUS AFB, OK & ROYAL AIR FORCE, MILDENHALL, UK **2004 – 2012**

Conducted in-flight duties to ensure successful completion of combat, reconnaissance, and transport missions. Managed and provided oversight of \$10M enlisted training budget.

EDUCATION • CERTIFICATION

PhD, Product Management, Capitol Technology University

MBA, General, East Texas A&M

MS, Artificial Intelligence and Machine Learning, Colorado State University – Global

MS, Project Management, Embry-Riddle Aeronautical University

PMP, Project Management Professional, PMI

PMI-ACP, Agile Certified Practitioner, PMI

PMI-SP, Scheduling Professional, PMI

CTAL-TM, Advanced Level Test Manager, ISTQB

ISTQB-CTFL, Certified Tester Foundation Level, ISTQB

Certificate in Agile Contract Management, Villanova University

Gaming Credits

Diablo IV, Blizzard Ent.

World of Warcraft: Wrath of the Lich King Classic, Quality Assurance Management, Blizzard Ent.

Overwatch 2, Quality Assurance Management, Blizzard Ent.

World of Warcraft: Dragonflight, Quality Assurance Management, Blizzard Ent.

Publications

Heinrich, D., McAndrew, I., **Pretty, J.** "Human Factors Considerations in Satellite Operations Human-Computer Interaction Technologies: A Review of Current Applications and Theory" International Journal of Managing Information Technology (IJMIT) Vol. 13, No.3, August 2021

Chen, K., **Pretty, J.** "Selection of Influential Factors on Fume Hood Containment Performance Based on Questionnaire Survey and Fuzzy Comprehensive Evaluation" Journal of the American Institute of Chemists, The Chemist, Volume 93, Number 1, March 2022

Heinrich, D., McAndrew, I., **Pretty, J.** "Attention, Concentration, and Fatigue in Space Operations" International Journal of Applied Technology & Leadership (IJATL) Vol. 1, Issues 2, July 2022

Heinrich, D., McAndrew, I., **Pretty, J.** "Automation, Alarm Management, and Human-Computer" International Journal of Applied Technology and Leadership (IJATL) Volume 2, Issue 1, Jan 2023