

JEREMY D. PRETTY

ADJUNCT PROFESSOR • AI / COMPUTER SCIENCE • PROJECT & PRODUCT MANAGEMENT

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ACADEMIC PROFILE

Interdisciplinary adjunct professor, doctoral mentor, and technology executive with teaching and subject-matter expertise spanning artificial intelligence, machine learning, computer vision, game development, project management, product management, procurement, risk, and quantitative analysis. Brings current industry practice into the classroom through more than a decade of leadership in software, quality engineering, cloud modernization, federal programs, and game development. Recognized for excellence in online teaching and experienced in doctoral supervision, curriculum review, adult learning, and mentorship.

TEACHING & ACADEMIC APPOINTMENTS

Adjunct Professor | South College 2026–Present

Teaching focus: Business Artificial Intelligence, including the application of AI and machine learning to business strategy, operations, decision-making, and organizational transformation.

Adjunct Professor | Embry-Riddle Aeronautical University 2026–Present

Teaching focus: Project Management.

Adjunct Professor | University of Maryland Global Campus 2026–Present

Teaching focus: Artificial Intelligence and Machine Learning courses.

Adjunct Professor | University of Arizona Global Campus 2024–Present

Courses taught: INF 336 Project Procurement Management; PRM 300 Introduction to Project Management; PRM 337 Integrated Cost and Schedule Control; PRM 400 Project Risk Management; BUS 611 Project Planning and Management.

Adjunct Professor | Grand Canyon University, College of Engineering and Technology 2024–Present

Courses taught: CST 545 Programming for Artificial Intelligence; CST 570 Machine Learning for Computer Science; CST 580 Artificial Intelligence; CST 590 Computer Science Capstone; DSC 510 Advanced Probability and Statistics.

Subject-matter expert: AIT 224 Image Processing and Computer Vision; AIT 406 Deep Learning for Computer Vision; AIT 450 Ethics of AI; AIT 560 Computer Vision; GDT 315 Multiplayer Game Development; GMC 451 Game Creation 3; GMC 452 Game Creation 4.

Peer reviewer: AIT 206 Reinforcement Learning; AIT 226 Feature Extraction and Image Representation; GDT 310 Game Security and Anti-Cheat Technology; GDT 320 Game Physics and Simulation.

Adjunct Professor | Southern New Hampshire University, Quantitative Studies & Operations Management 2022–Present

Recognition: Distinguished Online Teaching Award, Business Programs (2025); Outstanding Educator Award (2025); Outstanding Educator Award (2024).

Courses taught: QSO 340 Project Management; QSO 345 Project Management for CAPM Certification; QSO 349 Project Contracting and Procurement; QSO 355 Resource Estimating and Scheduling; QSO 420 Integrated Cost and Schedule Control; QSO 435 Adaptive Project Management; QSO 440 Topics in Project Management; QSO 640 Project Management; QSO 710 Internship in Operations/Project Management.

Adjunct Professor | Capitol Technology University 2020–Present

Doctoral service: Doctoral chair and doctoral committee member.

Courses taught: PRM 500 Becoming the Successful Product Manager; PRM 520 New Product Process; PRM 530 Product Management Tools and Metrics; PRM 540 Leveraging Expert Systems, Big Data, and Business Analytics for Product Management; PRM 600 Designing and Developing Great Products; PRM 610 Managing the Life of a Product.

EDUCATION

PhD, Product Management — Capitol Technology University

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

MS, Project Management — Embry-Riddle Aeronautical University

MBA, General — East Texas A&M University

PUBLICATIONS

- Heinrich, D., McAndrew, I., & Pretty, J. (2021). Human factors considerations in satellite operations human-computer interaction technologies: A review of current applications and theory. *International Journal of Managing Information Technology*, 13(3).
- Chen, K., & Pretty, J. (2022). Selection of influential factors on fume hood containment performance based on questionnaire survey and fuzzy comprehensive evaluation. *The Chemist*, 93(1).
- Heinrich, D., McAndrew, I., & Pretty, J. (2022). Attention, concentration, and fatigue in space operations. *International Journal of Applied Technology & Leadership*, 1(2).
- Heinrich, D., McAndrew, I., & Pretty, J. (2023). Automation, alarm management, and human-computer. *International Journal of Applied Technology and Leadership*, 2(1).

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

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 • Certificate in Agile Contract Management, Villanova University

TEACHING & TECHNICAL EXPERTISE

Academic

Online teaching • Doctoral mentorship • Curriculum review • Capstone supervision • Adult learning

AI & Computing

AI/ML • Computer vision • NLP • Python • C/C++/C# • Software engineering • Game development

Management

Project/program/product management • Procurement • Risk • Scheduling • EVM • QA • Leadership

PROFESSIONAL EXPERIENCE

Chief Artificial Intelligence Officer | PMAT Inc. 2024–Present

Remote | Previously Director of Project Management and Quality Assurance for U.S. Navy contracts

- Established and leads the enterprise AI/ML strategy and a company-wide roadmap for responsible adoption, innovation, and operational transformation.
- Founded the AI/ML Center of Excellence and developed governance, policy, standards, and best practices aligned with federal regulation, cybersecurity requirements, and responsible AI principles.
- Directs evaluation and implementation of generative AI, machine learning, intelligent automation, and AI-assisted software development across business and technical operations.
- Advises executives, program managers, and business-development teams on AI strategy, emerging technology, workforce enablement, and federal-market differentiation.
- Identifies high-value AI use cases that improve productivity and decision-making, reduce manual effort, and accelerate modernization; integrates AI into growth and capture strategies.
- Provides strategic leadership for project management and quality assurance initiatives supporting multiple U.S. Navy contracts and federal programs exceeding \$500 million in total value.
- Established and leads the Quality Assurance division, creating scalable frameworks, performance metrics, and audit-ready documentation for federal compliance and delivery excellence.
- Standardized project governance, risk frameworks, and cross-functional dashboards to improve delivery predictability and leadership visibility.
- Manages and mentors project managers and QA professionals across multiple programs, emphasizing proactive risk management, accountability, and continuous improvement.
- Serves as a liaison among corporate leadership, government stakeholders, and technical teams to align cost, schedule, performance, and contract deliverables.
- Implemented integrated project-tracking and QA systems and championed initiatives that improved efficiency, audit readiness, and customer satisfaction.

Founder | TMFPRETTY, LLC 2024–Present

Remote | Certified Service-Disabled Veteran-Owned Small Business (SDVOSB)

- Leads company vision, strategy, operations, financial oversight, and technical architecture in a lean startup environment.
- Designed, built, and deployed Caruso, a full-stack enterprise SaaS platform for project management, QA, HR, business development, and systems engineering (caruso-platform.com).
- Architected a multi-tenant platform with row-level security, role-based access control, tenant isolation, and AWS Marketplace contract subscriptions, registration, entitlements, SNS lifecycle handling, and automated seat enforcement.
- Built real-time collaboration capabilities with React, TypeScript, Node.js/Express, PostgreSQL on AWS RDS, and EC2 blue/green deployments.
- Implemented PMBOK-aligned Gantt scheduling, risk registers, earned value management, scenario analysis, milestones, and sprint management.
- Developed a QA suite for test authoring and execution, defect tracking, traceability matrices, and JITC evidence-pack generation.
- Engineered JWT authentication with sliding sessions, CSRF protection, rate limiting, security audit logging, proactive refresh, and CI/CD pipelines with zero-downtime deployment and automated database migrations.
- Oversees AI/ML pipelines for a 2D isometric action RPG, including procedural content, enemy behavior, anomaly detection, adaptive difficulty, narrative response, and autonomous testing agents.
- Architected 265+ runtime scripts (approximately 160,000 lines) across 40+ interconnected gameplay and networking systems and built 34 Unity Editor tools for asset generation through deployment.
- Built the open-source Constrails AI-agent safety system and Modelstripwire model-safety and reliability testing tool.
- Architected an internal multi-agent AI operating system and human-supervised agent ecosystem with room governance, workflow routing, approvals, safety constraints, auditability, and organizational learning.
- Manages business operations, scalable infrastructure, and promotional content supporting team growth, product delivery, and stakeholder communication.

Project Manager / Senior Test Lead | Blizzard Entertainment 2021–2024

Austin, Texas

- Directed 12 employees and 50 contractors; led recruiting, coaching, performance support, succession planning, and continuous improvement.
- Oversaw Graphics, Performance, Online, Game Engine, and Data Science test teams.

- Developed a Python/NLTK context-aware bug-triage application that improved triage accuracy and efficiency by 75% and eliminated approximately 80 daily staff-hours of Jira triage meetings.
- Spearheaded a Python, OpenCV, and TensorFlow visual-anomaly detection tool for real-time game monitoring, automated discrepancy detection, and annotated evidence capture.
- Owned test schedules, estimation, planning, execution, reporting, closure, risks, and quality metrics; partnered with development leadership and regional teams to improve delivery and customer experience.
- Created metrics and reporting for product quality, usability, system limitations, and data-informed stakeholder decisions.

Senior Technical Program Manager | United States Air Force Civil Service 2019–2021

Randolph AFB, Texas

Managed the A1 Virtual Data Center program and application migrations from on-premises infrastructure to AWS GovCloud. Implemented a call-center solution saving more than \$500,000 annually; served as Alternate Contracting Officer's Representative for a multiyear \$38 million fixed-price contract; maintained the Integrated Master Schedule and delivered monthly financial and strategic reports to government stakeholders.

Software Engineer (Volunteer) | Game Create Repeat 2021

Remote, global team | Fireflies and Figments: A Willow's Journey (Unity)

Programmed the Fear/Wonder Meter user interface and artificial-intelligence features for a free-to-play vertical-slice game planned for Steam release (firefliesandfigments.com).

Senior Project Manager | CDO Technologies 2017–2019

Randolph AFB, Texas

Led DevOps practices and teams and established shared engineering processes and operating practices.

IT Project Manager | BTAS 2017

Randolph AFB, Texas

Managed data-center migrations and IT initiatives, including system retirement, migration execution, and transition-roadmap maintenance.

Program Manager | P3I Inc. 2016–2017

San Antonio, Texas

Served in the Air Force Electronic Key Management System PMO as tactical lead for the Air Force Simple Key Loader life-extension project pending development and fielding of its replacement.

System Administrator II / Systems Test Engineer II / Scrum Master | Northrop Grumman 2013–2016

Various locations

Held technical-leadership roles and facilitated sprint planning, daily scrums, retrospectives, stakeholder meetings, and software demonstrations.

Associate Program Manager | United States Air Force 2004–2012

Altus AFB, Oklahoma, and Royal Air Force Mildenhall, United Kingdom

Performed in-flight duties supporting combat, reconnaissance, and transport missions and managed a \$10 million enlisted-training budget.

SELECTED GAME CREDITS

Diablo IV — Blizzard Entertainment

World of Warcraft: Wrath of the Lich King Classic — Quality Assurance Management, Blizzard Entertainment (2022)

Overwatch 2 — Quality Assurance Management, Blizzard Entertainment (2022)

World of Warcraft: Dragonflight — Quality Assurance Management, Blizzard Entertainment (2022)