

Maricruz (Cruz) Johal

MBA · Python Lecturer · Senior Software Engineer
(Ret.)

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PROFESSIONAL SUMMARY

Dynamic educator and technology professional with 27 years of software engineering experience and a proven track record of translating complex technical concepts into accessible, engaging learning experiences. Transitioned from a distinguished industry career to academia in 2022, bringing real-world expertise in application development, enterprise systems, and data analytics to undergraduate instruction at CSU Stanislaus. Holds dual Python certifications (PCAP and PCEP), Google Data Analytics certification, and specialized credentials in online pedagogy. Passionate about building inclusive, hands-on STEM curricula that cultivate technical confidence and open pathways to technology careers.

CORE COMPETENCIES

• Python Programming (Intro & Advanced)	• Software Application Development	• Online & Hybrid Instruction
• Curriculum & Course Design	• Canvas LMS Administration	• AI Tools Integration
• Data Analytics (SQL, Tableau, R)	• Agile / SDLC Methodologies	• Student Mentorship & Advising
• Enterprise Systems Engineering	• CodeCheck.io & Pearson MyLab	• Technical Video Production

PROFESSIONAL EXPERIENCE

Part-Time Lecturer

July 2022 – Present

California State University, Stanislaus · Turlock, CA

- Design and deliver rigorous, engaging courses in Intro to Python Programming, Advanced Python Programming, and Intro to Computer Information Systems (CIS) across both in-person and fully online modalities.
- Architect comprehensive course content within Canvas LMS, including interactive instructional modules, formative and summative assessments, and real-world programming labs that connect theory to industry practice.
- Leverage CodeCheck.io for automated code evaluation to provide students with immediate, actionable feedback, accelerating skill acquisition and reducing grading turnaround time.
- Produce professional-grade instructional video content using Camtasia; host and stream via Panopto with full caption support to ensure accessibility for all learners.
- Incorporate Pearson MyLab for structured assessment and integrate AI-assisted development tools to align coursework with current industry standards and employer expectations.
- Foster an inclusive, growth-oriented classroom environment that supports students from diverse academic and professional backgrounds pursuing technology careers.

Senior Software Engineer

October 1999 – May 2023

Turlock Irrigation District (TID) · Turlock, CA

- Served as the lead engineer responsible for the design, development, testing, troubleshooting, and long-term support of enterprise application software serving the IT Services Department and its internal client base.
- Owned and maintained TID's Customer Irrigation System, a mission-critical platform managing water ordering, delivery scheduling, billing, parcel tax assessments, and regulatory reporting services.

- Collaborated cross-functionally with operations, finance, and executive stakeholders to translate complex business requirements into scalable, maintainable software solutions.
- Championed software quality and documentation standards, ensuring system reliability and continuity across a 23-year engagement in a regulated utility environment.

Programmer Analyst

October 1996 – September 1999

Evans Telephone Company

- Contributed as a core member of a programming team engaged in a full rewrite of the company's Customer Information System, successfully delivering the project on schedule within a two-year timeline.
- Participated in all phases of the software development lifecycle including requirements analysis, system design, coding, testing, and production deployment. Performed under the guidance of a senior Computer Systems Analyst.

EDUCATION

Master of Business Administration (MBA) — Technology Management

October 2005

University of Phoenix

Bachelor of Science — Business Information Systems

May 1996

California State University, Stanislaus

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

Claude 101	Anthropic Education · May 2026
PCAP-31-03 — Certified Associate Python Programmer	Python Institute · April 2026
PCEP-30-02 — Certified Entry-Level Python Programmer	Python Institute · February 2026
Google Data Analytics Professional Certificate (8 courses)	Google / Coursera · November 2023
AI Tools for Teaching and Learning	Coursera · April 2024
Advanced Quality Learning & Teaching (QLT) — Online	CSU System · November 2023

TECHNICAL SKILLS

Languages & Frameworks: Python, SQL, Bash scripting; Flask (web development)

Data & Analytics: Google Data Analytics suite, Tableau, R, Pandas (introductory), Microsoft Excel

Development Tools: VS Code, Git, GitHub, Replit, CodeCheck.io

LMS & Instructional Tech: Canvas LMS, Panopto, Camtasia, Pearson MyLab

Enterprise Platforms: Utility billing systems, customer information systems, SDLC/Agile methodologies

Productivity: Microsoft Office Suite (Word, Excel, PowerPoint, Outlook)

INDUSTRY BACKGROUND

27 years of professional software engineering across two distinct sectors:

- Utility / Water & Power — Turlock Irrigation District, overseeing customer-facing irrigation management, billing, and regulatory compliance systems for over two decades.
- Telecommunications — Evans Telephone Company, contributing to a successful Customer Information System modernization project.