Reuben Gann, Ph.D.

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CLEARANCE

Active DoD Top Secret (current). Active CBP BI.

PROFESSIONAL SUMMARY

Experienced technical leader and enterprise architect with 20+ years supporting mission-critical national security programs. Proven ability to design large-scale systems, modernize legacy infrastructure, and guide cloud adoption across hybrid environments. Adept at aligning business objectives with technical strategy, driving platform modernization, and delivering secure, resilient, and scalable architectures.

SKILLS

- Architecture & Deployment: Large-scale distributed systems, hybrid cloud, CI/CD, containerization, zero-downtime deployment
- Leadership & Management: Technical roadmapping, stakeholder engagement, cross-team alignment, Scaled Agile Framework
- Security & Compliance: Security modernization, risk assessment, RMF, identity management, enclave design
- Programming & Engineering: Python, .NET, SQL, infrastructure automation, API design, Cursor/Codex engineering
- Domain Expertise: Border management systems, biometrics, system health analytics, large-scale device operations

EXPERIENCE

Chief Enterprise Architect *May 2024 – Nov. 2025*
SAIC, Sterling, VA
On-site contractor with CBP/OIT/PSPD/Land Border Integration

- Developed and executed technical strategy for CBP's Land Border Integration, enhancing performance and reliability, and deploying new capabilities in biometrics, traveler document acquisition, and license plate reading.
- Led architecture and engineering team on projects spanning AI/ML, equipment recapitalization, security modernization, and analytics for system health.
- Oversaw automation and O&M of thousands of deployed devices nationwide.
- Managed the master contract schedule across multiple stakeholder groups using Scaled Agile Framework.
- Participated in Program Increment planning at both team and program levels.

Senior Machine Learning Architect/Data Scientist *Jul. 2023–May 2024*
SAIC, Sterling, VA
On-site contractor with CBP/OIT/PSPD/Land Border Integration

- Develop strategy and overall architecture for AI/ML operations revolving around systems health and image recognition tasks.
- Build tooling and develop code for a data pipeline from CBP lanes into the cloud for AI/ML training.
- Define overall approach to activities, including software design principles, tooling, and technology.
- Develop real-time processing code for health messages to determine system performance and alert operations personnel.

Tech Lead/Physicist/Data Scientist *Dec. 2017–Jul. 2023*
DigitalSpec LLC, Falls Church, VA
On-site contractor with DHS/CBP's Data Analysis Center–Threat Evaluation and Reduction

- Led development and deployment of an ML-based threat detection algorithm at U.S. ports of entry, working with physicists, DBAs, and developers on full-stack implementation and model evaluation.
- Engineered real-time health monitoring system for radiation portal monitors, combining statistical methods, dashboards, and automated alerting; enabled proactive maintenance across nationwide infrastructure.
- Directed large-scale AWS migration of on-prem systems, including data transformation, application containerization, CI/CD integration, and SSO rollout.
- Produced technical reports and operational recommendations on nuclear threat detection strategies for DHS and partner agencies.
- Recruited and mentored a multidisciplinary team of 40+ staff; conducted over 250 interviews and provided daily technical guidance to developers and analysts.

Visiting Assistant Professor of Physics *Sep. 2015–Sep. 2016*
Union College, Schenectady, NY
Department of Physics and Astronomy

- Developed physics courses for life scientists, mathematicians, chemists, and biochemists. Conducted daily lectures and assessment of students.
- Expanded and refined lab activities to emphasize simulation and statistical rigor in empirical reasoning, such as quantitative error analysis and error propagation in numerical solutions to differential equations
- Participated in department-wide assessment measurement of Newtonian Physics comprehension to determine value-added by varied pedagogical techniques

Post-doctoral Research Fellow *Oct. 2011–Aug. 2015*
Georgia Institute of Technology, Atlanta, GA
Department of Chemistry and Biochemistry

- Developed system for detection of biomolecules on surfaces using high-power VUV laser

light for the Center for Chemical Evolution
- Proposed and conducted experiments into surface-reaction origin of molecular makeup of Titan using electron stimulated desorption time-of flight
- Developed and characterized a compact and low-power microplasma device for photoionization in ambient mass spectroscopy
- Conducted research at the Advanced Photon Source synchrotron at Argonne.
- Wrote and illustrated six papers published in high impact, peer reviewed journals
- Mentored and managed new researchers in vacuum science and electronics
- Directed student capstone experience projects in renewable energy using novel photoactive materials

EDUCATION

- PhD, Physics, University of California, Riverside, December 9, 2011
- MS, Physics, University of California, Riverside, March 19, 2005
- BA, Physics, Claremont McKenna College, Claremont, CA, 2003