

JOSE ORENCH

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SUMMARY

Retired FBI Agent with 36 years of experience to include 20 with the FBI and 12 with NASA. Engineering experience in the design and development of aerospace mechanical systems, firearms examinations, forensics, failure analysis, and automated manufacturing. Extensive project management experience of multi-million-dollar projects as a Special Assistant to the Director of the FBI's Engineering Research Facility.

SKILLS

- Firearms examinations
- Technical training
- Mechanical engineering
- Aerospace systems engineering
- Automated manufacturing
- Forensics
- Leadership
- Failure analysis

EXPERIENCE

08/2018 to Present – President / Technical Consultant

Orench Consulting LLC – Pembroke Pines, FL

- Engineering, science, technology and forensics consulting

10/1996 to 10/2016 - Unit Chief / Program Manager / Director's Special Assistant

FBI – Quantico, VA

- Led the design and deployment of data intercept network communications
- Directed the FBI's Unmanned Aerial Surveillance (UAV) program
- Applied mechanical engineering concepts in the development of forensic validation studies
- Spearheaded special projects for the FBI's Engineering Research Facility
- Deployed to the World Trade Center to lead evidence collection efforts
- Conducted crime scene reconstruction training in the US and abroad
- Directed complex international kidnapping investigations
- Conducted firearm's forensic examinations and bullet trajectory analyses

06/1983 to 10/1996 - Lead Systems Engineer / Acting Section Chief

NASA – Kennedy Space Center, Florida

- Conducted testing and installation of aerospace components
- Designed and developed structures and materials for aerospace components processing
- Developed procedures for aerospace components handling and testing
- Directed the design, modification and maintenance of aerospace facilities
- Designed automated payload installation and access systems
- Conducted aerospace facilities inspections and materials failure analysis
- Provided lectures and presentations for the NASA Public Affairs Office
- Member of the Challenger and Columbia accident investigation teams

EDUCATION AND TRAINING

- **1996 Master of Science:** Mechanical Engineering, **University of Central Florida** – Orlando, Florida
- **1983 Bachelor of Science:** Mechanical Engineering, **University of Puerto Rico** – Mayaguez, PR

ACTIVITIES AND CERTIFICATIONS

- Member of ASM International, SAE, and NDIA
- FBI Evidence Response Team Certification
- FBI Technically Trained Agent Certification
- NASA Aircraft Accident Investigation Certification
- President of Orench Consulting LLC

PUBLICATIONS

- Orench, J. A. A validation study of fracture matching metal specimens failed in tension, *AFTE Journal* (2005) 37:142–149.
- Orench, J. (1996) A mechanism of pinhole formation in the reinforced carbon-carbon thermal protection system of the space shuttle orbiter. Master's Thesis. College of Mechanical Engineering, University of Central Florida.