KRISHAN PATEL

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EDUCATION

Stanford University (SCPD)
(Dec 2021) Management Science and Engineering Graduate Certificate — **GPA: 4.00 / 4.00**

Embry-Riddle Aeronautical University — **Daytona Beach, FL, USA**
May 2019 MSE, Master of Software Engineering — **GPA: 4.00 / 4.00**
May 2016 BSE, Bachelor of Science - Aerospace Engineering — **GPA: 3.11 / 4.00**
Concentration: Air-Breathing Propulsion; Minor: Applied Mathematics

WORK EXPERIENCE

2019-Present **Collins Aerospace, Software Engineer** — **Cedar Rapids, IA, USA**
- Execute traditional and model-based development for Flight Display Application Software through the use of a range of different program-specific engineering tools and languages
- Innovate new tools to automate verification inspection efforts that can be used across multiple programs

2018-2019 **FAA Academy Funded Research, Software Developer** — **Daytona Beach, FL, USA**
- Front-end Vue implementation of a web application that will serve as a training simulator for ATC students at the FAA Academy undergoing the Enroute Air Traffic Control Training Program
- Validated and designed a full-stack single-page application, which interfaces with a back-end ERAM simulator

2017-2018 **GE Aviation, Avionics Software Co-Op** — **Cheltenham, UK**
- Executed a V-Model process as part of an Agile development team working on a product meeting DO-178B standards
- Enhanced existing avionic display units by using embedded software updates and ARINC-429 communication labels to manipulate hardware and extend functionality
- Developed Java and DXL scripts that execute on Jenkins to facilitate the data extraction of requirements from DOORS

PROJECT EXPERIENCE

2018 **Semantic Web-Based System Requirement Specification**
- Used requirement elicitation techniques and models to develop a specification document for a semantic web testing tool
- Achieved SRS validation by conducting bi-directional traceability between elicitation artifacts and specification

2017-2018 **REACTOR**
- Worked as part of a team to develop a voice command system that integrates into a cockpit platform concept as part of a European initiative to help reduce pilot workload and improve flight safety
- Produced multiple audio-collection field agent systems that utilize SDRs and GE's Predix Platform to collect data that could be used to help develop, train and test the project's speech-to-text system through machine learning

2016 **Automated Requirement Traceability (ART)**
- Designed and developed a bi-directional traceability verification software product that could parse source code and execute a comparison against a UML class model
- Executed SCRUM management techniques to ensure the prioritization of customer needs
- Enhanced product performance through use of multithreading and parallelism where effective

SKILLS

Software Languages	C/C++, Java, JavaScript, HTML/CSS, C#, MATLAB, Python
Development Tools	Confluence, Docker, Enterprise Architect, Git/Version Control, Jenkins, JIRA, LDRA Testbed, Linux Environment, MATLAB Simulink/Polyspace, Node.js, Oracle VM VirtualBox, Raspberry Pi, Visual Studio Team Services, Vue.js
Engineering Tools	AEDsys, CATIAv5, GasTurb, GE Predix, IBM DOORS, IBM Rhapsody, IBM Rational Team Concert, Metasploit, NASTRAN, NESSUS, Netcraft, Nmap, Orbital STK10, Wireshark, VAPS XT

LEADERSHIP POSITIONS AND ACCOMPLISHMENTS

Private Pilot License Holder (CAA and FAA)
Cadet Corporal - Combined Cadet Force (RAF Section)
Member - Tau Beta Pi Honors Society (2018)
Contender - MAAXX Europe Drone Competition (2018)
Volunteer - GirlsGetSET (2017-2018), Girl Day (2021)
Member - Order of Omega Honors Society (2016)
President, Treasurer - Multicultural Greek Council (2015, 2014)
President, Secretary - Sigma Beta Rho Fraternity Inc. (2015, 2013)
ERAU Dean's List (Spring 2014, Fall 2013)
USPA Skydiving License Holder

PUBLICATIONS

Co-Author, "Scenario-Driven Development and Testing of ATC Conflict Detection", SciTech Technical Paper (2019)
Co-Author, "Review of Formal Agile Methods as Cost-Effective Airworthiness Certification Processes", Journal of Aerospace Information Systems, Vol. 15, No 8. (2018)

References available upon request.