HYUNG UK JEE

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TARGET: DATA ANALYST / RELIABILITY ENGINEER | AEROSPACE INDUSTRY

DATA-DRIVEN PRACTICES ♦ OPERATIONS MANAGEMENT ♦ BUSINESS DEVELOPMENT ♦ CUSTOMER SERVICE ♦ SOFTWARE DEVELOPMENT

Detail-oriented, analytical, and process-focused, *Reliability Engineering Professional* with transferable experience in tracking, monitoring, reporting, and visualizing statistical models and design changes while performing detail-oriented root-cause failure analysis to provide insightful corrective action recommendations. Possess a proven track record in monitoring and maintaining consistency and integrity of industry-proven tools and processes; defining system requirements and communicating analysis results; supporting planning, organization, and implementation of lean six sigma continuous improvement processes and tools; and evaluating customer as well as operational needs.

- ❖ **Showcase professionalism in the aviation industry,** with subject matter expertise supported by FAA Airframe and Power Plant Mechanic's License and maintain accountability for overseeing aircraft component and system reliability under Continuing Analysis and Surveillance System (CASS) program
- ❖ **Analyze, evaluate, and resolve** maintenance issues while offering high-quality technical support to dynamic teams, ensuring aircraft fleet, equipment, and systems are maintained to sustain safe operating conditions.
- ❖ **Recognized for exceeding expectations,** earning increased responsibilities and promotion based on performance while leveraging cross-cultural exposure and prioritization abilities to complete work requirements with excellence.
- ❖ **Seamlessly handle and resolve complex issues** and critical situations as a proven problem solver, while adapting quickly to changing requirements, and quickly learning new processes, systems, and techniques.
- ❖ **Verifiable success** in writing design documents from inception-to-completion, managing proposals, implementing troubleshooting best practices, and devising innovative solutions to complex technical problems.
- ❖ **Skillfully manage multiple projects from concept-to-completion,** on time, and in alignment with requirements, while providing data-driven recommendations to drive efficiency, productivity, and effectiveness.

CORE COMPETENCIES

- Continuing Analysis and Surveillance System (CASS)
- Component and System Reliability
- Root-Cause Analysis / Failure Modes
- Data Science / Visualization / Strategic Planning
- Aircraft Maintenance & Operation Management
- Training & Development / Classroom Management
- Effects Analysis / Fleet Performance Management
- Stakeholder Engagement / Timeline Management
- Troubleshooting / Conflict Resolution & Mediation
- Continuous Improvements / Lean Six Sigma / DMAIC

WORK EXPERIENCE

REPUBLIC AIRWAYS – INDIANAPOLIS, IN **2018–2020**

RELIABILITY ANALYST, DATA VISUALIZATION SUBJECT MATTER EXPERT

Executed a multi-faceted and all-encompassing role, handling daily responsibilities, including identifying operational failures, while maintaining an information hub of various metrics, corrective actions, and progress statuses. Examined data sets for useful information to meet business specifications while determining required transformation to supplement existing data and deliver analytic value. Followed-up with stakeholders regarding repair stations, OEM, and internal engineering.

- ♦ **Operated as a main contributor** for conducting failure mode and effect analysis (FMEA) on data to measure fleet-wide component performance for the operational interruption, economic impact, and component reliability.
- ♦ **Conceptualized** multi-layer PowerBI dashboards as references for business intelligence platform used by company leadership and **ensured seamless transition and unification** of airline operations into an advanced data science approach by following industry best practices.
- ♦ **Performed** both advanced qualitative and quantitative root cause analysis on Python of high volume aircraft flight data utilizing PostgreSQL queries as a means to identify developing maintenance trends, patterns and correlations that could improve overall fleet performance
- ♦ **Reviewed and evaluated** PIREPS, MIREPS, Heavy Check discrepancies, MRO / vendor shop reports, and unscheduled removals to monitor a trend and update monthly chronic discrepancies database.
- ♦ **Built and improved** regression predictive models and learning algorithms on Scikit-Learn to understand existing airline operational processes in order to develop and recommend actionable solutions for 'OEM,' 'Embraer,' 'Heavy Check facilities,' and 'MRO and component vendors'
- ♦ **Ensured seamless transition and unification** of advanced data visualization reporting platform while presenting data-driven solutions to manufacturers, repair stations, and internal maintenance group

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WORK EXPERIENCE *CONTINUED…*

UNDERGRADUATE LAB TEACHING ASSISTANT | PURDUE UNIVERSITY — WEST LAFAYETTE, IN **2017–2018**

- **Directed three lab sections with 12 students** to implement avionics troubleshooting and fabrication methodology while training students regarding computer-based electronic systems and built-in testing used in aircraft.
- **Demonstrated lab projects** to students using industry standard maintenance procedures and equipment, thus earning positive verbal/written feedback from professors and students regarding learning success.
- **Maintained course attendance** and grade records in accordance with department guidelines while preparing laboratory sessions, collaborating with faculty members, and encouraging students to conduct experiments.

LABVIEW DEVELOPMENT TEAM LEADER | AVIATION ELECTRONICS LAB — WEST LAFAYETTE, IN **2017–2018**

- **Designed software** to extract flight control and engine data from flight simulation program while enabling students to attain in-depth knowledge regarding complex aircraft systems and aerodynamic characteristics.
- **Steered dynamic team of programming application software developers** as a part of the avionics curriculum while coordinating proposals and plans for new software development projects on time and under budget.
- **Cultivated student lab instructions** to develop software knowledge while establishing four new labs to retrieve real-time flight data from various types of sensors installed on aircraft using LabVIEW software.
- **Designed practical labs pertaining to real-life situations** regarding aircraft operations with precision and accuracy.

A&P MECHANIC APPRENTICESHIP | PURDUE AVIATION — WEST LAFAYETTE, IN **2017**

- **Reviewed and evaluated** airworthiness directives (AD) and aircraft maintenance manuals (AMM) to identify problems; performed routine maintenance tasks to meet flight schedules; and communicated effectively during complex and stressful situations.
- **Assisted in coordinating tear-down, repair, modification, and fabrication work** on aircraft structures to meet Part 141 flight school operation specifications as well as end-to-end operations of the removal, build-up, and installation of Aircraft sheet metal, components, wiring, hydraulic tubing, and flight controls.

FIRST AUTHOR, TEAM LEADER | SENIOR CAPSTONE PROJECT — WEST LAFAYETTE, IN **2017**

- **Optimized and improved** Troubleshooting Aircraft Electrical Faults Process while meeting project milestones, including goals, measures, deliverables, and communications between sponsors and the group.
- **Performed an integral role** in decreasing troubleshooting time for technicians while improving and optimizing end-to-end processes without compromising reliability or safety functions.
- **Utilized Lean Six Sigma continuous improvement (DMAIC) approach** to resolve problems regarding increased aircraft downtime for maintenance, thus isolating faults with improved procedure —40% faster than conventional.

EDUCATION QUALIFICATIONS & CERTIFICATIONS

PURDUE UNIVERSITY — WEST LAFAYETTE, IN **2018**

— BACHELOR OF SCIENCE (B.S.) AERONAUTICAL ENGINEERING TECHNOLOGY | MINOR: PRODUCT LIFE MANAGEMENT

FAA AIRFRAME AND POWER PLANT MECHANIC LICENSE | IBM DATA SCIENCE | EMBRAER MSG-3 | ASQ LEAN SIX SIGMA YELLOW BELT

HONORS & AWARDS

ORAL PRESENTATION SELECTION | PURDUE UNDERGRADUATE RESEARCH CONFERENCE (2018) — *RECOGNIZED FOR OUTSTANDING PRESENTATION OF RESEARCH & CREATIVE ENDEAVORS AT THE INAUGURAL COHORT OF ORAL PRESENTERS*

BEST POSTER AWARD | SATT INDUSTRY ADVISORY BOARD POSTER SYMPOSIUM (2018) — *GIVEN IN RECOGNITION OF BEST RESEARCH POSTER AT THE 2018 SCHOOL OF AVIATION AND TRANSPORTATION TECHNOLOGY INDUSTRY ADVISORY BOARD POSTER SYMPOSIUM*

TECHNOLOGY SKILLS

MICROSOFT OFFICE SUITE: WORD, EXCEL, POWERPOINT | POWER BI | VISUAL BASIC FOR APPLICATION | HTML / CSS | PYTHON3
SQL | LABVIEW | CATIA V5 | NX | SOLIDWORKS | CAMWORKS | TEAMCENTER | ADOBE PHOTOSHOP

LANGUAGE PROFICIENCY

BILINGUAL FLUENCY IN THE ENGLISH AND KOREAN LANGUAGES