Nicholas R. Shuckerow (SECERT CLEARANCE)

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SUMMARY

Experienced Systems Engineer with a strong background in data analysis, project management, and operational efficiency improvements. Proven ability to lead technical teams, manage large-scale projects, and innovate solutions in dynamic environments. Seeking to leverage my experience in data analytics, mechanical, electrical, and software engineering.

Certifications: Microsoft Excel Expert, Engineer Intern (IE), SolidWorks Associate – Mechanical Design, Lean Six Sigma Green Belt, DAU Systems Engineering, SolidWorks Sheet Metal, SolidWorks Weldments

Technical Skills/Applications: Excel, Python, R, SQL, PowerBI, SolidWorks, AutoCAD, MATLAB, JIRA, Creo

EXPERIENCE

Principal Software Engineering Lead, Pratt and Whitney, East Hartford, Connecticut 04/2024 – Present

Harvesting the power of AI/ML to develop the next generation of diagnostic sensors.

- Implement AI/ML for fault detection, isolation, and removal of condition based components.
- Manage data system requirements between propulsion systems and airframe software.
- Lead projects focusing on advanced weapon capabilities, integrating data analytics and Agile workflows.
- Run queries on internal database to conduct trend analysis in python using AI/ML and regression.

Advanced Data Analyst, Marine Corps (Reserves), Marine Innovation Unit 11/2022 - Present

Locate and consult for DoD to find the next best technology for the Marine Corps.

- Consult with various DoD agencies to bring data analysis methods and tools to the warfighter.
- Assist the HQ Marine Corps Department of Aviation in developing a "sortie-generation" algorithm using Google OR-TOOLS in python to match aircraft missions to aerial connectors, resembling a Capacitated Vehicle Routing Problem.

Senior Systems Test Lead, Raytheon, Tucson, Arizona 01/2023 – 04/2024

Innovate unique solutions to accomplish successful testing of complex missile systems.

- Innovate and develop mechanical, electrical, and software solutions for missile systems testing.
- Led a team of 8 individuals of various roles, managing tasks, planning events, and program execution while maintaining team cohesion, collaboration, and a growth mindset.
- Assist team members in determining their career path within the company based on their long-term goals.
- Develop and debug algorithms in python to compute telemetry parameters for missile navigation.
- Create GUI's in python to display real time navigational metrics for the hardware operator.
- Plan, track, and execute programmatic milestones through agile methods (JIRA).

Principal Systems Engineer, Northrop Grumman, San Diego, California 08/2022 – 01/2023

Lead the H-1 Lead Technical Integrator team with design systems engineering requirements.

- Define testing requirements for H-1 and Future Vertical Lift qualification testing.
- Create Interface Control Models in NX to ensure all designs meet their specific parameters.
- Present progress within our Integrated Product Team to higher management, demonstrating public speaking and interpersonal communication skills.

Operations Officer, Marine Corps, MCRD San Diego, California 01/2020 – 08/2022

Led 20-person team responsible for initial processing, academic, aquatic, martial arts, and medical rehabilitation operations of over 12,000 recruits a year entering the Marine Corps.

- Developed new academic, aquatic, and administrative lesson plans to bring new technology and teaching ideologies to Marine Corps basic training.
- Designed and created an automated signature routing system in SharePoint and Power Automate which decreased monthly paper usage by 80%.
- Hold quarterly individual counseling's with my team of 20 Marines to assist in the Marine's and units development.
- Analyze, track, and present training and readiness KPI's using PowerBI.

Aircraft Maintenance Officer, Marine Corps, MCAS Miramar, California 09/2016 - 01/2020

Responsible for the maintenance of V-22, CH-53, AV-8B, H-1, and RQ-21 aircraft and managing 300 personnel while deployed.

- Planned and prioritized both scheduled and unscheduled maintenance inspections through complex analysis of average completion time, aircraft needing maintenance, and the flight schedule.
- Record and analyze component order, replacement, and removal cycles using Excel and Python to reduce lead times and increase aircraft readiness.
- Conducted daily, weekly, and monthly planning meetings with the Operations department, ensuring the maintenance departments schedules were aligned and met the flying needs of the squadron.

PROJECTS

Applied Data Science, UCSD

- Built next-product-to-buy model by using econometrics approach, adjusting parameters in NN, RF, & XGB models to predict purchase behavior and analyzed confusion matrices, AUC scores, and accuracy metric tests to refine performance, enabling near 1-to-1 marketing email customization, boosting product growth & response rates .
- Optimized Analyst-Driven Model, improving mobile ad targeting with customized logistic regression benchmarked against proprietary model, increasing marketing ROI and customer engagement
- Identified gamers with a high propensity to buy through training, testing, and tuning regression, neural network, and random forest models on telemetry data (using GridSearchCV), boosting conversion rate & profitability of campaigns.
- Designed an uplift model discovering persuadable segments, by preparing datasets utilizing regressions, NNs, RFs, and XGBoost to pinpoint segmentation for upcoming campaigns, increasing marketing strategies' ROI
- Developed churn prediction model, by identifying interactions between features and interpreting permutation importance, highlighting critical churn drivers, to provide intervention and A/B test proposals.
- Identified fraudulent insurance claims by running regressions, statistical tests, log transformations, clustering, and interpreting z-scores, to uncover erroneous patterns and strengthen proactive fraud detection.
- Built a discrete event simulation model in R (simmer) to conduct operations research of a bank's customer service process, testing custom service time distributions and routes, refining staffing & lowering wait times.

A/B Testing of Facebook Marketplace Photos, UCSD

- Designed an A/B test on Facebook Marketplace comparing engagement with stock vs personalized photos for furniture sales, resulting in a statistically significant correlation (T-test) between response rates & photo type.

EDUCATION

Bachelor of Science, Mechanical Engineering 09/2012 - 05/2016
Norwich University, Vermont, Magna Cum Laude

Masters of Science, Business Analytics Present – 12/2024
University of California – San Diego, California