ERIN JAMES WILLS
- Data Professional, Engineer, Educator

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OBJECTIVE
Versatile and entrusted engineer with over 10 years of experience working on technical projects across multiple domains seeking to transition into a data career.

TECHNICAL SKILLS
- **Languages** - Python, SQL, PySpark, JavaScript, HTML, CSS, VBA & Adv. Excel, Perl, Bash, MATLAB, R
- **EDA & Visualization** – Adv. Stats, A/B Testing, Pandas, Matplotlib, Seaborn, D3js, Tableau, Looker, Power BI, QGIS
- **ETL & Pipelines** – Preprocessing, SQL, SQLAlchemy, PySpark, PostgreSQL, MongoDB, Flask, CI/CD, Git, JIRA
- **Algorithms** – Regression, Classification, Clustering, Deep Learning, Association Mining, Linear Programming
- **Cloud & Big Data** – AWS, GCP, Azure, Databricks, Splunk, SageMaker, Glue, Lambda, Athena, DynamoDB, RapidMiner

PROFESSIONAL EXPERIENCE

Data Science and Visualization Instructional Specialist | EdX/ 2U, Inc. **|** *May* 2020 – Present
- Supported 170+ students learning Git, VBA, Python, JavaScript, Tableau, R, and machine learning. Led tutoring sessions, performed code reviews, provided supplemental demonstrations, and mentored students during projects.
- Created Jupyter notebook and Flask application that better monitors classroom achievement and student risk metrics and loads cohort data into a database for easy access. Results since implementing the monitoring program indicate increased homework completion and more positive student feedback due to increased instructional team support.
- Developed learning modules about statistics, databases, common git routines, visualizations, and project management (Scrum, Six Sigma, Stage-Gate methods).   Taught nearly 50% of the curriculum (51 sessions) as a substitute instructor with positive feedback from weekly student surveys.

Operations Analyst Engineer II | Expedia Group, Inc. **|** 2022 – 2023
- Monitored product reliability via synthetic and direct monitoring and improved Splunk and Tableau dashboards.
- Analyzed customer login behavior to assess the effect of service outages – resolved monitoring gaps for a regional market.
- Demonstrated an automated method to optimize product failure alert parameters using a classification model that could aid in early identification of shifts away from normal operation and promote early intervention.
- Contributed to Agile Scrum meetings, addressed JIRA backlog, and collaborated on projects via Slack.

Sr. Program Administrator/Engineer | *Northwestern University & University of Tennessee* **|** 2013 – 2021
- Worked within Electrical Engineering and Interdisciplinary Therapeutics research groups implementing small projects including maintenance of databases, creation of digital products (website, publications, etc.), creation of automated workflows, extraction of data and generation of reports, and infrastructure changes to the 147k sq ft research facilities.

Systems Engineer | *Innovative Controls Inc.* & *BASF Corporation* **|** 2007 – 2011
- Led manufacturing operations including the development of automation systems, training program, dashboards, analytics, schedules, and project cost estimates. Projects ranged from $1M to $150M.

PERSONAL PROJECTS
- **Chicago Food Inspections:** Analyzed city restaurant inspections to determine key factors leading to failed inspections.
- **Production Scheduling :** Developed linear optimizations in Excel/Python to determine best supply chain configuration.
- **Amazon Review**: Analyzed 60 GB of Amazon product feedback with PySpark to determine incentive program quality.
- **Election ETL**: Created python script to resolve NYTimes Election API errors and load updated data to Postgres database.
- **Myopia**: Tested preprocessing methods and machine learning algorithms to identify the impacts of different models.

EDUCATION
- **Certificate in Data Science and Visualization**, Northwestern University, Evanston
- **MS Education,** University of Tennessee, Knoxville
- **BS Chemical Engineering**, Purdue University, West Lafayette