

Robert W. Szarek

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SKILLS

- Proficient in machine learning models: linear/logistic/multiple regression, tree-based methods, K-means clustering, NLP (spaCy)
- Proficient in NLP frameworks: *tfidf*, bag of words, word vectors, word embeddings
- Excellent in R (Rstudio), packages include: knitr, shiny, dplyr, ggplot2, lm, caret, psych, markdown
- Proficient in Python (VSCode, Jupyter), modules include: sk-learn, numpy, pandas, statsmodels
- Excellent in psychometrics and traditional statistical hypothesis testing and survey methodologies
- Excellent in visualizations with Tableau, ggplot2, matplotlib
- Excellent in IBM SPSS GUI and Syntax
- Proficient in SQL
- Proficient in AGILE/SCRUM software engineering framework
- Native fluency in Polish, near-fluency in German

PROFESSIONAL EXPERIENCE

Unum, Chattanooga, TN

June 2021 – Current

Data Scientist II – People Analytics

- Perform Organizational Network Analysis (ONA) in R to detect WFH policy adherence summaries.
- Perform multiple regression to identify significant drivers of gender pay-equity.
- Use NLP to summarize open-ended text into topic areas.
- Built a custom skills database from mining employee Workday profiles and resumes.
- Built and maintain a Tableau dashboard to report volunteerism and donation rates across the enterprise.
- Built a predictive model (linear regression) from candidate assessment data to predict employee job performance.
- Built a custom in-house R package to automate Teradata server connections, API data requests, and custom functions for analyzing disparate impact for entry-level roles.
- Build a python script to monitor the degree of discrepancies with employee time-off requests between two absence-management databases.
- Ran a study to monitor turnover rates after salary increases using chi-square.
- Built a docker container to “freeze” analyses for permanent-reproducibility.

Checkster (aka Outmatch HCM), San Francisco, CA

October 2020 – March 2021

I/O Psychologist

- Led a project initiative to develop a machine learning algorithm to predict job performance from reference-checking survey data.
- Consulted clients on topics such as: survey content, rating scales, benchmarking analytics, etc.
- Created a repository of centralized knowledge of I/O Psychology best practices and principles.
- Cluster-analyzed job classifications to streamline competencies assessed in surveys.

Industrial/Organizational Solutions (IOS), Inc., Oak Brook, IL

June 2012 – September 2020

Consultant / Senior Researcher

- Consulted police & fire chiefs, HR managers and other key government officials on policies and practices in employee selection and minimizing adverse impact and bias in testing.
- Compiled and produce rigorous statistical technical documentation outlining the various deliverables associated with a client project.
- Automated numerous analytical processes to save employer thousands of dollars in manual labor.

- Integrated a dynamic feedback reporting system leveraging R and Markdown to create automated customizable feedback reports for clients.
- Built an interactive Shiny R user dashboard to import, pre-process, score, and summarize datasets containing written examination data.
- Developed machine learning algorithms (regression) to set cut-scores on high-stakes employment tests administered nationally to over 100,000 candidates.
- Served as project manager for agencies seeking to develop custom cognitive tests or interviews.
- Ran statistical analyses to drive organizational change including: ANOVA, t-test, chi-square, linear, multiple and logistic regression, correlations, factor and cluster analysis, etc.
- Compiled normative databases utilizing R, Python or SQL to drive normative exam standards.

Swissport, Chicago, IL (ORD)

March 2006 – November 2016

Load Control/Flight Operations

- Worked for various airlines including SWISS, Royal Jordanian, Air One and ANA as either a load planner, flight operations, check-in agent or ramp coordinator.

EDUCATION

Masters' of Art (M.A.), Industrial/Organizational Psychology, Elmhurst College

Bachelor of Arts (B.A.), Psychology, Minor in Philosophy, Cum Laude, Northeastern Illinois University

ACHIEVEMENTS & PROFESSIONAL AFFILIATIONS

Private Pilot License, Aircraft Single Engine Land (ASEL), FAA

September 2015

Society for Industrial/Organizational Psychologists (SIOP) - Volunteer

October 2020 – Present

- Built a custom R package for annual membership data cleaning.
- Laid the foundation for a data infrastructure plan to help streamline the access and retention of sensitive data.
- Build an R shiny dashboard to provide an interactive experience to view membership data.