Stephen T. Knapp

Email: Stephen.T.Knapp14@gmail.com
Cell: (585) 729-4806
LinkedIn: https://www.linkedin.com/in/stephen-t-knapp/
Portfolio: https://github.com/skgithub14/StephenKnappPortfolio

EDUCATION

Harvard University Extension School, Cambridge, MA
Masters, Data Science (in progress), *GPA: 3.91*
Graduate Certificate, Data Science (completed)

Rensselaer Polytechnic Institute, Troy, NY
Master of Engineering, Dual: Industrial and Management Engineering & Mechanical Engineering
   Focus Areas: statistics and modeling
Bachelor of Science, Mechanical Engineering

PROFESSIONAL EXPERIENCE

Data Science Graduate Student   Jan. 2020 – Present
Harvard University Extension / Northeastern University, Cambridge / Boston, MA
- Optimized and validated a CART model in Python to 89% accuracy for predicting a community's risk for a COVID-19 outbreak; resulted in winning 2nd place in a university-wide data science competition.
- Published a *Medium.com* article with Tableau visualizations on the impact of stay-at-home orders relating to COVID-19 infection rates in the US.
- Produced a *YouTube* presentation on the optimization of hyperparameters for an auto-encoder (AE) neural network which was applied to forecast a multi-variate time series and implemented in Python's Tensorflow.
- Applied exploratory data analysis (EDA), feature generation, variable transformation, and variable selection to develop a stable model that determined a device's location based on Wi-Fi signal strength using R.

Assistant Superintendent   May 2019 – Oct. 2019
Turner Construction, Buffalo, NY
- Tracked project deliverables specifically for HVAC equipment and responsible for site safety and logistics.

Engineering Project Manager   Oct. 2017 – Apr. 2019
Safran Seats USA LLC, Gainesville, TX
- Managed 25 aircraft seating design and manufacturing projects from sale to delivery through application of project management principles and the creation of a work break-down structure.
- Leveraged database queries and analytics to clean and explore data packages sent to our customers to identify potential improvements; implemented system controls that resulted in 100% on-time submission.
- Selected by VP of Engineering to lead a performance baseline study on engineering processes; applied lean six sigma statistical techniques and produced actionable insights for management.

Operations Officer   Mar. 2017 – Sep. 2017
US Army Corps of Engineers, Ft. Polk, LA
- Responsible for managing the training and operations database for a 500-person organization.

Executive Officer   Feb. 2016 – Feb. 2017
US Army Corps of Engineers, Ft. Polk, LA
- 2nd-in-command of 100 people with 5 direct reports; charged with logistics, maintenance, and engineering operations; superior performance in this role led to the organization's selection for deployment.
- Instituted a data driven approach to the maintenance program of 75 vehicles; resulted in an increase of our equipment's operational readiness rate from 44% to 92% over the 6 months post-implementation.

Stephen T. Knapp

Platoon Leader   Oct. 2014 – Jan. 2016
US Army Corps of Engineers, Ft. Polk, LA
- Lead a group of 40 Soldiers with 5 direct reports; charged with supporting operational units with engineering support in an austere and resourced constrained environment.
- Analyzed GIS data of significant enemy acts (SIGACTS) and terrain to determine high risk areas.

Base Engineer   Sep. 2012 – Sep. 2014
US Army Corps of Engineers, Ft. Polk, LA
- Planned and executed a $1.4 million project to improve base protection.
- Designed and constructed a road and bridge to allow access for patrols and logistics resupply.

SKILLS

Programming and Applications
Statistical Software: R, Python, Matlab
Big Data / Databases / Cloud Computing: h2o / SQL / AWS & GCP
Machine Learning: Neural Networks in PyTorch, TensorFlow & Keras
Data Visualization & Communication: Tableau, GGPlot2 & MS PowerPoint
Version Control: Git
General Use: MS Excel & C++

Statistical Analysis and Modeling
Design of Experiments and Hypothesis Testing
Data Cleaning & Data Exploration
Feature / Variable Selection
Modeling: Regression Analysis, KNN, SVM/SVR & Classification Trees
Cluster Analysis & Associations
Time Series Analysis

Soft Skills
Strong communicator and effective presenter of technical information to a variety of audiences.
Experienced project manager and detail-oriented planner who gets results.
Pragmatic leader, loyal follower & collaborative team member.

PATENTS, AWARDS, AND CERTIFICATIONS

Northeastern University Data-athon 2nd Place: *COVID-19 Outbreak Predictor* (submitting for publishing), 2020
Lean Six Sigma Green Belt, Syracuse University, March 2018
Project Management Professional (PMP), June 2016
Patent: *Methods of Leveling Ink on Substrates Using Flash Heating & Apparatuses Useful in Printing*, May 2012
de Fleury Medal (Steel), Army Engineer Association, 2017

ORGANIZATIONS AND VOLUNTEERING

Open Data Science Conference (ODSC) Boston
Project Management Institute (PMI)
Veterans of Foreign Wars (VFW)