

Greg Gerber

DATA SCIENCE | MACHINE LEARNING

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PROFILE

Experienced data scientist with a passion for using machine learning to solve real-world problems. I have 6 patents pending on topics including vulnerability management, natural language processing, and information extraction. I am skilled at communication and presentations, and I have extensive experience presenting to executives.

EXPERIENCE

SENIOR DATA SCIENTIST

RSA SECURITY | 02/2018 - PRESENT

- Optimized NLP model hyperparameters, improving performance by 60% for small data size.
- Utilized Python & Jupyter Notebook to build isolation forest model to detect customers that have complex product configurations. Complexity Score report deployed to Dundas BI.
- **Won 2020 RSA innovation challenge** using Python & Jupyter Notebook to build NLP model that suggests previous answers to new RFP questions. Created initial dataset with Python, and developed web application using Flask, JavaScript, & HTML.
- Developed user-guided parser and grammar-based automated algorithm with C++ and Python to extract hierarchical structure from regulatory documents.
- Performed exploratory data analysis on product Salesforce data in R. Built Shiny dashboard providing insights on where product investment is needed. Consulted with other product lines to enable similar capabilities.
- Developed automated bookings analysis in Python, saving several hours of manual data analysis per quarter. Presented results at company-wide, cross-functional data workshop. **Received highest employee recognition reward.**
- Presented to engineering department on data science, reinforcement learning, vulnerability management, NLP, and information extraction.
- Mentored junior employees on data science projects involving data cleaning, data wrangling and exploratory data analysis.

SALES ENGINEER

RSA SECURITY | 04/2014 - 02/2018

- Established successful track record by consistently exceeding 100% of quota and receiving **3 EMC Excellence Awards** and the **2016 Q4 SE MVP award**.
- Led technical presentations for customer accounts in all major verticals. Worked with sales to ensure buy-in from technical and executive stakeholders.
- Coached newer employees on presentations and demos of our enterprise product.

ELECTRICAL ENGINEER / RESEARCH SCIENTIST

L3HARRIS TECHNOLOGIES | 01/2012 - 04/2014

- Automated RF data analysis test review process with MATLAB to improve system test efficiency by 33%.
- Performed ground penetrating radar (GPR) research using MATLAB, Visual Basic, and CST (electromagnetic simulation tool). Sampled ice thickness from distribution to automatically create ice profiles. Simulated GPR in CST and performed signal processing in MATLAB.

EDUCATION

Georgia Institute of Technology – M.S. Computer Science, Machine Learning Specialization (2018)
Ohio State University – B.S. Electrical & Computer Engineering, *Magna Cum Laude* (2011)

AWARDS

- 2020 RSA Red Challenge Winner (company-wide innovation challenge)
- Highest internal recognition award in October 2018 for automating incredibly time-consuming analytical process and impacting multiple functional teams
- 2016 Q4 Sales Engineer MVP
- 3 EMC Excellence Awards

SKILLS

Languages: Python, R (Proficient)
SQL (Knowledgeable)

Tools: NumPy, Pandas, SciPy, Scikit-Learn, Gensim, Jupyter Notebook (Proficient)
PyTorch, TensorFlow, Keras, Git, Unix (Knowledgeable)

Software: Dundas BI (Proficient)
Tableau, AWS (S3, EC2, SageMaker) (Knowledgeable)

INTERESTS

Trail Running | Hiking | Climate Change | Nutrition

PUBLICATIONS

Adaptive Antennas for GNSS Receivers

June 2012

Joint Navigation Conference (*JNC*), Colorado Springs, CO
Elsherbeni, D., Reddy, C.J., Svendsen, A.S.C., Gerber, G.,
Sainath, K., and Gupta, I.J.

POSTER PRESENTATIONS

L-Band Antenna for GNSS Receivers

The ElectroScience Laboratory Consortium on Electromagnetics and Radio Frequencies (*ESL-CERF*), Columbus, OH
Gerber, G., Svendsen, A.S.C., Gupta, I.J., and Chen, C.-C.

August 2011

PENDING PATENTS

Risk Score Generation for Assets of an Enterprise System Utilizing User Authentication Activity

Sashka Davis, Zulfikar Ramzan, Zohar Duchin, Greg Gerber, Mark Gergely, Steve Schlarman

Publication #:
20200252422
August 6, 2020

Prioritization of Remediation Actions for Addressing Vulnerabilities in an Enterprise System

Sashka Davis, Greg Gerber

Publication #:
20200351294
November 5, 2020

Predicting Vulnerabilities Affecting Assets of an Enterprise System

Greg Gerber

Filed: April 30, 2019

Extraction of a Nested Hierarchical Structure from Text Data in an Unstructured Version of a Document

Greg Gerber, Corey Carpenter, Kevin Bowers

Filed: April 9, 2020

Determining Syntax Parse Trees for Extracting Nested Hierarchical Structures from Text Data

Greg Gerber, Sashka Davis

Filed: April 9, 2020

Automated Processing of Unstructured Text Data in Paired Data Fields of a Document

Greg Gerber, Sashka Davis

Filed: June 19, 2020