Ethan Minier, PhD

Data Scientist / Consultant

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Technical Skills:

Predictive Analytics
Regression Modeling
Advanced Modeling Techniques
Big Data Visualization
Data and Quantitative Analysis
Data Mining and Manipulation
Business Intelligence (BI)
ML Algorithms (Basic)
Statistics & Statistical Modeling
Design of Experiments (DOEs)
Optimization
Research and Reporting

Languages:

Python-(Pandas/NumPy/SciPy/...)
R, SQL, Java, JavaScript, Matlab

Tools:

JMP, SAS, PyCharm, GIT,
MS Excel/PowerPoint/Word

Education

Ph.D. | Aerospace Engineering
Georgia Institute of Technology
May 2019 | GPA: 3.84

MBA | Data Analytics & BI
Georgia Institute of Technology
May 2019 | GPA: 4.00

M.S. | Aerospace Engineering
Georgia Institute of Technology
May 2014 | GPA: 3.63

B.S. | Aerospace Engineering
Syracuse University
May 2012 | GPA: 3.86

Experience

Independent Project
Jan 2019 – Present
Minier Consulting — *Everywhere, USA*

- While traveling in my self-converted van I have been developing a new online marketplace for an undisclosed product in my spare time
- Currently automating the process of identifying potential marketplace contributors by mining social media post data for key hashtags, leveraging NLP algorithms, and analyzing social network patterns using Gephi
- Taught myself Java and enhanced my Python (Pandas), R, and data science skills

Technical Advisor and Research Engineer
Jan 2017 – Jan 2019
Airforce Research Laboratory in partnership with ASDL at GT — *Atlanta, GA*

- Managed a multi-member team – goal was to develop a novel methodology to assess a new military battlespace initiative
- I developed a detailed aircraft structural sizing and analysis module in Python
- I developed models (RSEs and ANNs) of structural sizing results and structural component manufacturing costs using JMP
- Drivers of success in the low-cost attributable aircraft initiative were identified after performing an analysis of the mission performance metric simulation data

Lean Six Sigma Consultant
Jan 2018 – May 2018
Delta Material Services in partnership with GT Scheller COB — *Atlanta, GA*

- Applied the DMAIC approach to improve DMS's operations
- Used data analytic techniques to identify non-value adding processes and data visualization techniques to shed new insight on key performance metrics
- Leveraged my dissertation work to redesign their operational layout resulting in an 11% reduction in part-related movement waste and an additional savings of over $200k in warehouse space over the next three years

Pro Bono Consultant
Jan 2018 – May 2018
Global Growers in partnership with GT Scheller COB — *Atlanta, GA*

- Learned how to be an effective consultant - properly scoping and executing a consulting project at the enterprise level
- Collaborating with management at Global Growers, my team and I successfully developed an automated financial accounting tool (Excel + SaasAnt + QuickBooks) to streamline and improve their farmer payment process

Business Strategy Project Consultant
Jan 2018 – May 2018
AT&T in partnership with GT Scheller COB — *Atlanta, GA*

- After performing an analysis of AT&T's assets, my team and I identified their DirectTV/Uverse platform and pending acquisition of TWC as key assets
- A comprehensive market, SWOT, and Porters Five Forces analysis enabled us to then present upper management at AT&T with a viable strategy for leveraging these assets with the greatest return
- Proposed an "a la carte" approach, whereby such key assets are offered to the customer in order to increase AT&T's value proposition; a strategy AT&T has since adopted with their premium entertainment selection offering with plans

Data Scientist
Aug 2017 – Dec 2017
McKesson Corporation in partnership with GT Scheller COB — *Atlanta, GA*

- Successfully developed predictive regression models (in R) for McKesson supplied historical panel data considering various factors
- Models enabled valuable demand and causality insights to be derived along with improved forecasting for McKesson's analytics team

Doctoral Dissertation:

Title: "*A Robust Methodology for Strategically Designing Environments Subject to Unpredictable and Evolving Conditions*"

- Developed a way of jointly considering strategic business decisions and market conditions while designing an environment's physical layout
- Leveraged a statistical modeling approach to define a novel robustness metric for the performance of a layout design
- Created novel metaheuristic optimization (genetic algorithm and simulated annealing) techniques
- Demonstrated, with success on an industry application, the ability of the methodology and developed tool to provide enhanced operational insight and improved layout designs

Certifications:

Six Sigma Black Belt (2019)
Engineer in Training (FE Exam)

Soft Skills:

Leadership
Creative Problem Solving
Teamwork
Communication
Collaboration
Work Ethic
Adaptability / Agility

Data Analytics and Optimization Specialist — *Aug 2017 – May 2018*
Boeing (Charleston, SC Plant) in partnership with ASDL at GT — *Atlanta, GA*

- Using plant sensor and human input data, I modeled the motion of Boeing's robotic arm drilling operation by leveraging advanced data modeling techniques
- Developed automated processes in Python for joining multiple data sources
- Performed an extensive data analysis and visualization of their unstructured operational data using R and Python
- Developed an optimization technique in Python, which leveraged the motion model, to identify a more efficient drilling sequence ultimately increasing throughput and decreasing manufacturing costs for Boeing

Modeling & Simulation Engineer — *Feb 2016 – Dec 2016*
Boeing (Huntsville, AL) in partnership with ASDL at GT — *Atlanta, GA*

- Developed a software tool enabling feasible assembly sequences to be identified and visualized in real-time, which advanced Boeing's insight into the assembly process problem
- Tool was later applied to the installation of sensor equipment into the main-engine section of the Space Launch System (SLS), enabling alternative assembly sequences to be identified along with key assembly disruptors

Modeling & Simulation Engineer — *Jan 2013 – Jan 2016*
SAFRAN in partnership with ASDL at GT — *Atlanta, GA*

- Created a multidisciplinary design environment for aircraft air-driven generators
- Developed regression models of high-fidelity analyses and presented data analysis results to managers and top executives in the company regularly
- Environment ultimately enabled them to win their first air-driven generator design and development contract for the military