Benjamin Craver

bencraver.com

Education

North Carolina State University

Master's Operations Research   December 2019

Operations Research is the application of mathematical methods to the analysis of problems involving complex systems.

B.S. Industrial and Systems Engineering   GPA: 3.79 w/ Statistics Minor   May 2018

Study Abroad: Seoul National University   Spring 2017

Courses in International Finance, Finite Element Analysis, Aesthetics, Game Theory and Korean Politics

Work Experience

Boeing – Artificial Intelligence and Machine Learning Intern   Summer 2019
- Developed and deployed solutions across multiple business functions with team of data scientists and buisness stakeholders
- Gained experience with timeseries analysis for forecasting, reinforcement learning, and deep learning technologies

Teaching Assistant   2015-Present
- ISE 589 - Applications of Python in database interaction, data science, scientific computing and machine learning
- ISE 519 - Designing applications and databases using VBA and SQL emphasis on query design
- ISE 135 - Introductory course to Python with focus on engineering problem solving and integration with Excel
- ISE 110 - Programming VBA macros in Excel with emphasis on algorithm development and design projects

Undergraduate Research Assistant at the DIME Lab   2017-2018
- Researched opportunities in Data Intensive Manufacturing Environment and 'smart manufacturing'
- Focus on automation, data analysis, blockchain/smart contract applications with integrated machines
- Project used natural language processing in Python with methods such as Word2Vec, GloVe

Optum Technology of UnitedHealth Group - Technology Development Intern   Summer 2016
- Worked as Cyber Forensics Investigator, Malware Reverse Engineer
- Built malicious email analysis engine using Python to automate the collection of data and analysis of emails

Project Experience

- Senior Capstone: Shuttle Transportation Analysis and Optimization for Boston Public Schools

  Collaborated within team of five to optimize bus routes by minimizing ride times for students using tools such as SAS, ArcGIS, Python, and Google APIs to gather data, calculate travel times, and design routes

  Our team won best ISE Senior Design Project after presenting work to colleges, professors, and alumni

- Designed a scheduling interface for hospitals using VBA & Excel in paired programming environment
- Developed a stochastic model of returns for Lenovo to find process errors and product defects
- Built simulation model of global logistics system and optimized distribution center location using SIMIO
- Hackathons -Prize winner at Georgia Tech Hackathon and NC State Future Pharmacy Hackathon

Technical Skills

Programming

- Python, VBA, SQL, R, SAS, Java, Julia, MATLAB, JavaScript, HTML
- Experience with MongoDB, NO-SQL, SQL databases, object-oriented and mathematical programming

Relevant coursework and project experience in mathematics

- Stochastic models, linear programming, non-linear programming, machine learning, deep learning, classification, regression analysis, factorial experiments, actuarial science, and statistics in quality control

Leadership & Activities

- Executive Board of Sigma Phi Epsilon: Enforced ethical standards and presided over judicial hearings of 150-man chapter. Communicated chapter status and standards with university officials and chapter alumni.
- Maintained a part-time job while in school since Fall of Sophomore year.
- Recent reading: Adaptive Markets, Algorithms to Live By, Antifragile, Blockchain Revolution, Flash Boys, Linked, (Mis)Behavior of Markets, Prediction Machines, Power of Habit, Radical Markets, Sapiens, Superforecasting, The Fourth Industrial Revolution, Thinking Fast and Slow, & Thinking in Systems