Benjamin Craver

bencraver.com

Education

North Carolina State University

M.S. *Operations Research* Spring ’20

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 Spring ’18

Seoul National University Study Abroad Spring ’17

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

Work Experience

Teaching Assistant for ISE 589 – Python for Industrial and Systems Engineers 2018-Present

- Applications of Python in database interaction, data science, scientific computing and machine learning

Undergraduate Research Assistant at the DIME Lab 2017-2018

- Researching effects of Data Intensive Manufacturing Environment, working towards ‘smart manufacturing’
- Focus on automation, data analysis, blockchain/smart contract applications and integrated machines
- Working with natural language processing using Python and 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

Teaching Assistant for ISE 110 - Computer-Based Modeling for Engineers 2015- 2016

- Programming VBA macros in Excel with emphasis on algorithm development and design projects
- Responsibilities included grading homework, hosting office hours and debugging code for students

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 (in order of fluency)

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

Statistics, Mathematical Modeling, and Data Science

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

Leadership, Volunteering & Etc.

- 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 since Fall of Sophomore year.
- Red Cross blood drive recruiting, Service Raleigh, Tutoring & Habitat for Humanity volunteer.
- Books I’ve read recently: Algorithms to Live By, Antifragile, Blockchain Revolution, Flash Boys, Linked, Prediction Machines, Power of Habit, Sapiens, Superforecasting, The Fourth Industrial Revolution, & Thinking in Systems