

# Daniel Kraft

Data Scientist Danieljk46@gmail.com

(240) 561-2819

311 Canterbury Lane  
Severna Park, MD 21146

Daniel-J-Kraft.github.io

## EDUCATION

### MASTERS OF SCIENCE - APPLIED MATHEMATICS AND STATISTICS

JOHNS HOPKINS – Baltimore, MD | 2020 – 2022 | GPA: 3.82/4.0

Whiting School of Engineering | Specialized in Optimization and Operations Research

### BACHELOR OF SCIENCE – MATHEMATICS

### BACHELOR OF SCIENCE – PHYSICS

UNIVERSITY OF MARYLAND – College Park, MD | 2016 – 2020 | GPA: 3.85/4.0

Department of Computer, Mathematical, and Natural Sciences | Completed the statistics track for mathematics major

## EXPERIENCE

### MATHEMATICAL RESEARCHER

NAVAL RESEARCH LABORATORY | Washington, DC | Jan 2021 - Present

- Research, design, and implement over 14 decentralized optimization algorithms to study theoretical and computational performance
- Follow latest research on distributed optimization, multi-agent task allocation, and pose graph optimization
- Develop and maintain python environment to efficiently perform numerical experiments

### TEACHING FELLOW

UMD PHYSICS DEPARTMENT | College Park, MD | Aug 2019 – Aug 2020

- Led weekly discussion sessions to engage students in lecture concepts
- Held weekly office hours to assist students in solidifying understanding outside of class
- Graded homework, quizzes, and tests in timely manner

### RESEARCH ASSISTANT

QUANTUM MATERIALS CENTER | College Park, MD | May 2018 – Aug 2019

- Employed flux method to grow varying crystal samples and performed analysis to record physical properties, composition, and overall quality.
- Presented weekly progress reports of crystal growths to supervisors and peers
- Created and managed secure access database using visual basic containing over 1,000 growth entries

## ACHIEVEMENTS

### Outstanding Winner in the 2019 Mathematical Contest in Modeling

- Named 1 of 17 Outstanding Winners out of over 20,000 international teams
- Modeled apex predator population dynamics problem using python
- Delivered 23 Page report in 4 days

### Meritorious Winner in the 2019 SIMOIDE Modeling Challenge

American Mathematical Society Award for Mathematical Achievement

## SPECIALTIES

Mathematical Modeling Data Analysis

Decentralized Optimization

Nonlinear Optimization

Combinatorial Optimization

Operations Research Data Visualization

## PROGRAMMING

Python Matlab R SQL Git

Scikit Learn MPI Pandas

## LEADERSHIP EXPERIENCE

### Maryland Media Board of Directors Member

- Review and approve budget consisting of over \$100,000 for academic year of operations  
- Establish a strategic outlook for future success of company, notably transitioning to online only platform operations

### Vice President of Sigma Alpha Mu

- Won the Presidents Cup, the university's most prestigious greek life award, for time on council  
- Awarded Innovative Risk Management Award at international convention  
- Oversaw 13 committees as head of internal affairs including philanthropy, community service, academics, and housing committees

References available upon request