# COOPER MCGUIRE

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## PROFESSIONAL SUMMARY

Talented, technical, and analytical employee effective at multi-tasking and maintaining a friendly attitude under pressure. Efficiently builds loyalty and long-term relationships with clients while consistently achieving organizational and individual goals. Detail oriented and highly organized. Looking for an opportunity to contribute in a collaborative work environment.

## SKILLS

- GCAM
- Java
- Python
- R
- SQL
- Tableau
- AMPL
- Access Database
- Git

## EDUCATION

**Cornell University** Bachelor of Engineering in Research and Information Engineering Applied Economics and Management — Anticipated May 2022 Operations Minor in Dyson School of

## WORK EXPERIENCE

**Systems Planning and Analysis /** Alexandria, VA — Summer 2021 **Operations Research Analyst Intern** Part of Cross Domain Warfare Analysis Group supporting the Defense Advanced Research Projects Agency (DARPA). Developed a stochastic modeling based means to incorporate a range of threats and constraints to Navy vessels on a theater level. Integer programming approach for risk management.

**U.S. Senate Committee on the Budget** / Washington, DC — Summer 2020 **Summer Committee Intern** Organized, operated, and prepared committee hearings. Wrote analytical hearing background memos pertaining to future budget challenges, including taxation for electric and automated vehicles and consolidation of over 65 federal housing assistance programs.

**Maroon Creek Club** / Aspen, CO — Summer 2019 **Golf Member Services** at Aspen's most affluent club. Catered to club members as they interacted with the club's recreation services and amenities. Ever-changing needs required fast-paced decision-making and on-the-job problem solving to provide customized solutions.

## TECHNICAL EXPERIENCE

- Stochastic Modeling & Simulation
- Systems Engineering approaches
- Object Oriented Programming and Data Structures
- Probability and Statistics
- Regression techniques
- Network algorithms and modeling
- Machine Learning Implementations

Faculty Research Projects:

- **Social Justice Mathematics and Data Analysis**- Published a mini-textbook (60 pg) on the decision sciences for 4000 inmates in prisons nationwide. Topics included voting theory, apportionment, and gerrymandering. Honorable Mention for Undergraduate Presentation at Joint Math Meetings 2020, "Winning with Math: An Introduction to Social Choice for Prison Inmates". Analyzed survey data gathered from inmates on effectiveness of Cornell's prison education system.
- **Hawkes-dictated demand applied to Economic Order Quantities**- Publishing paper exploring how self-exciting demand affects an inventory reorder quantity (EOQ). Developing a simulation to determine the optimal EOQ, modelling Hawkes processes on challenges universal to industry.