## KARSON SOMMER

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### **EDUCATION**

THE UNIVERSITY OF IOWA

Iowa City, IA

Master of Science, Business Analytics

08/2020 - 12/2021

• 4.00 GPA

# Bachelor of Science in Engineering, Electrical Engineering

08/2016 - 05/2020

• 3.86 GPA, Graduation with distinction

Minor: Mathematics

President's List 2 years, Dean's List 4 years

### **TECHNICAL SKILLS**

• Tools: MATLAB, Java, C++, SQL, GIS

• Methodologies: Skilled in image processing, software development, and mathematical modelling

• Select Projects:

<u>Strogger</u> 11/2019 – 05/2020

Developed an Android app that provides real-time feedback and analytics on running form in collaboration with a multidisciplinary team which included biomedical engineering and law students

<u>Smart Fire Sprinkler</u> 01/2019 – 05/2019

Designed and constructed a self-aiming fire sprinkler system and Android application for live fire tracking by interfacing stepper motors, an infrared sensor, Arduino, and Google Firebase

### **EXPERIENCE**

UNIVERSITY OF IOWA lowa City, IA

### Teaching Assistant: Database Management

01/2020 – Present

• Instruct 4 one-hour classes per week and hold 3 one-hour office sessions per week

Review and grade homework assignments for 120 students

ENVENTIVE ENGINEERING Remote

### **Mathematical Programming Assistant**

06/2019 - 08/2019

• Formulated pin in slot tolerance equations and developed code in C++ which were integrated into a new product

- Updated deprecated rendering functions in 100's of LaTeX documents to prevent future errors
- · Validated mathematical proofs and identified and fixed software bugs using an internal bug tracker

## US ARMY CCDC CHEMICAL AND BIOLOGICAL CENTER

Rock Island, IL

**Data Analysis Intern** 

06/2018 - 08/2018

- Summarized over \$6 billion of Army Industrial Base procurement and contractor data for commanding officers
- Prepared a report on the analysis of integrating additive manufacturing into Army production facilities
- Fulfilled data requests from other departments using Microsoft SQL Server daily

### **ACTIVITIES & LEADERSHIP**

**OPENSTREETMAP** Online

**Regional Contributor** 

12/2019 - Present

- Created over 500,000 nodes, mapping running infrastructure, public landuses, and performing quality assurance
- Developed a unique method to convert heatmaps into paths using image processing techniques in MATLAB

# NCAA DIVISION I TRACK AND FIELD/CROSS COUNTRY

Iowa City, IA

08/2016 - 10/2020

<u>Distance Runner</u>

- Competed in 7 Big Ten Championships including a team win in 2019
- Coordinated with professors to manage coursework while travelling around the country for competition
- Awarded Big 10 Distinguished Scholar 4 years, Academic All-Big Ten 4 years, Athletic Letter 4 years