# **BRANDON SAMS**

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Data Scientist with experience modeling large scale infrastructure, and working on a research and development team.

# **EDUCATION**

## Master of Science in Data Science, Bellevue University

2019 - 2021

• 3.800 GPA

## Bachelor of Science in Mathematics with Minor in Communication, Boise State University

2013 - 2017

- 2-Time National Champion for Competitive Speech and Debate
- 3.59 GPA
- Honors College Graduate

# Valedictorian, Mountain Home Senior High School

2009 - 2013

# **PATENTS**

#### DERIVING TRAFFIC SIGNAL TIMING PLANS FROM CONNECTED VEHICLE TRAJECTORY DATA

- Developed software that would aggregate historic GPS vehicle data and build models of traffic signal behavior
- Reduced dependency on parter data being recieved from Advanced Traffic Management Systems
- Tripled the count of traffic signals being modeled in the United States
- US Patent No. US-20230013604-A1
- Publication Date 2023-01-19

# CAREER EXPERIENCE

Traffic Technology Services: 2018 - Present

## **Data Scientist Supervisor / Scrum Master**

September 2020 - Present

- Designed, implemented, and documented an automated data pipeline for traffic signal model generation
- Utilized unsupervised machine learning (EP-Means) to cluster circularly distributed statistical data
- Worked with domain experts to incorporate their feedback into predictive models
- Led Agile/Scrum processes for R&D team, including standup, sprint planning, and retrospectives
- Promoted a culture of transparency, trust, and continuous improvement with communication and leadership skills

# **DevOps Engineer**

August 2018 - September 2020

- Provided API support for clients using our predictions in their CV2X and Autonomous Vehicle Applications
- Worked with agencies to establish connectivity to TTS's on-prem cloud hardware and software
- Developed and implemented quality control metrics for traffic signal predictions
- Managed production rollout of new internal software releases, including installation and bug reporting
- Windows Server System Administration using PowerShell
- MySQL Database Administration

## **SKILLS**

- Object Oriented Programming: C#, Python
- Data Visualization: PowerBI, Tableau, R
- Scripting: Windows Powershell, Bash, Jupyter Notebooks
- Network tracing: Wireshark
- Strong writing, documentation, and speaking skills
- Ability to work cooperatively in a team environment
- Confident with the Microsoft Office Suite of tools, such as Sharepoint, Dynamics, Flow (Power Automate), Excel