Mitchell A. Joseph

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EDUCATION

University of Vermont   Burlington, VT
Masters of Science, Complex Systems and Data Science   May 2023
GPA: 4.0/4.0

St. Lawrence University   Canton, NY
Bachelor of Science, Mathematics   May 2015
GPA: 3.9/4.0

WORK EXPERIENCE

Widewail   Burlington, VT
Data Scientist   March 2023-Present
- Leveraged large language models (LLMs) to perform aspect based sentiment analysis - achieving state of the art performance
- Increased marketing revenue by 90% YoY through strategic data-driven initiatives
- Collaborated with the Director of Marketing to create industry leading Voice of Customer reports in both the automotive and property management industries
- Assisted with the design and launch of our customer survey product
- Designed and developed customized reporting tools for Amazon's Automotive Division to rank local car dealerships

University of Vermont   Burlington, VT
Graduate Research Assistant   August 2022-May 2023
- Analyzed open source communities affected during the COVID-19 pandemic
- Researched dimensionality reduction techniques applied to temporal networks
- Collaborated with members of Google's Open Source team
- Advised by professor Jim Bagrow

Deep Analytics   Montpelier, VT
Machine Learning Engineer   May 2022-August 2022
- Built deep learning models for real time object detection
- Used transfer learning and fine tuning to optimize vision models
- Worked with both PyTorch and Tensorflow
- Utilized diffusion models to generate artificial data

Vespers   New York, NY
Data Scientist   December 2018 - May 2020
- Applied survival analysis to create customer churn models
- Responsible for feature engineering, preprocessing, and data cleaning
- Established Vespers Amazon AWS account to scale our analytics platform
- Reported directly to CFOand CEO

Closed Loop Ventures   New York, NY
Independent Contractor   July 2017 - May 2020
- Invented dynamic models for early stage companies
- Compiled balance sheet, income statement, and statement of cash flows
- Conducted industry research on competitive business practices
- Reported directly to the managing director

RESEARCH

1. *Recovering Lost and Absent Information in Hypergraphs*
   M. Joseph and J. Bagrow (2023)
2. *Covid Projects on GitHub*
   M. Joseph and J. Bagrow (2022)
3. *Modeling the Effect of COVID-19 on Spatial Mobility*
   Y. Bird, D. Hudon, M. Joseph, E. Weis (2021)

SKILLS

Programming Languages: Python, SQL, R
Theory: Bayesian Statistics, Network Analysis, Probability Theory, Machine Learning, Deep Learning, NLP
Common Tools: Numpy, Scipy, Scikit-learn, Pandas, Pytorch, NLTK, Matplotlib, Seaborn, Plotly, Linux/Unix, Git, AWS, Serverless
Soft Skills: Communication, teamwork, leadership, management, problem solving, public speaking, listening

INTERESTS & HOBBIES

| Biking | Crosswords | Skiing | Canoeing | Cooking | Sci-Fi novels |