JEREMY **ARSENAULT**

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>EDUCATION

M.S. Computer Science Engineering, *Michigan State University* 2023
B.S. Computer Science Engineering, *Michigan State University* 2020
B.S. Mathematics, *Michigan State University* 2020
Other: OUTCO Data Science Bootcamp *(2020),* Independent Study *(Vector Calculus, PDEs, Nonlinear Dynamics, Analysis, Topology, Geometry, Information Theory)*
Favorite Coursework: Deep Learning (CSE891), Adversarial Machine Learning (CSE891), Probability and Statistics (STT441/442), Selected Topics in Computer Networking (CSE910), Multidisciplinary Research Methods in Evolution (CMSE891)

>LANGUAGES + TECHNOLOGIES

- **Proficient:** Python, Julia, SQL
- **Exposure:** Kubernetes, Docker, C / C++, Java, R, JavaScript, Rust, AWS

>PROFESSIONAL EXPERIENCE

Dell | Data Scientist 2021-2023

- Improved deal order prediction by >40% by developing methods to use previously inaccessible data sources
- Designed and implemented pipeline (Airflow, GitLab, Kubernetes, Python) to expose short term revenue forecasts and deal recommendations for ~10k medium business accounts to other data science teams in Dell
- Created account, deal, and product level embeddings using sparse multimodal data streams for the following downstream tasks: optimization, clustering and TDA, analysis of embedding spaces as dynamical systems, hypothesis testing
- Developed methods to identify ~15% of unlabeled quotes and purchases as key program specific data using NLP on untidy freetext fields
- Experienced in data exploration projects involving motivated design and parameter selection of statistical models describing business processes

Internships and pre-graduate experience available on request

>PROJECTS

Beam Selection | Github URL 2023
Formulated beam selection as optimization problem and solved with reinforcement learning (class project)

HockeyJockey | Github URL 2021
Built a robot to play air hockey and achieved human-level performance with reinforcement learning (personal project)

FormProcessor | Github URL 2020
Created an app for processing forms with handwritten fields

Project Pachyderm | GPS Prediction Lead | Article URL 2020
Created a machine-learning toolsuite for ERP to manage and better use data to increase effectiveness of elephant conservation efforts in South Africa

>LEADERSHIP + AWARDS

Urban Science Award for Best Overall CSE Capstone Project, *Michigan State University* 2020
Dean's List, *Michigan State University*
Chess Club President, *Michigan State University*