SILAS M. FALDE

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EDUCATION

University of Michigan School of Engineering **Ann Arbor, MI**
Junior B.E.S. in Data Science, GPA: 3.13/4.00 *August 2023 – December 2026*

Relevant Courses: Machine Learning, Artificial Intelligence, Database Management, Regression Analysis, Probability and Statistics, Data Structures and Algorithms
- Michigan Data Science Team (MDST) – Member 2 years
- Heartbeat (A Cappella) – Member 1 year

Western High School **Parma, MI**
GPA: 3.963 *August 2019 – May 2023*
- Men's Varsity Soccer – Captain 1 year, Member 2 years
- Select Choir – Member 3 years

WORK EXPERIENCE

Ally Financial, Inc. **Detroit, MI**
Intern, Data Management *May 2025 – August 2025*
- Created data dictionaries and data lineage documentation leveraging Python, enhancing data governance and compliance.
- Added data quality checks to existing data pipelines using Python and SQL, improving data integrity and reliability.
- Developed a data availability dashboard in Power BI to monitor data refresh rates and availability, ensuring timely access to critical data.

Michigan Soccer Referee Association **Ann Arbor, MI**
Certified Grassroots Soccer Referee *March 2022 – Present*
- Officiating on a referee team to create a safe, fair, and fun environment for players, coaches, and spectators.
- Applying knowledge of the rules of soccer to facilitate the sport.

RESEARCH

University of Michigan Department of Epidemiology **Ann Arbor, MI**
Research Assistant – Computational Lead *September 2025 – Present*
- **Leading** the technical development of a **Python** pipeline using a large language model to classify narratives of collective violence.
- Performing data cleaning, exploratory data analysis, and descriptive statistical analysis on a large dataset using **R** and **Python**.
- Evaluating model performance using **performance metrics** including accuracy, precision, recall, and F1 score.

University of Michigan Department of Epidemiology **Ann Arbor, MI**
Research Assistant *September 2024 – May 2025*
- Awarded 3rd place (top ∼1%) in the CDC Youth Mental Health: Novel Variables Data Challenge.
- Developed **Python** pipelines using a large language model on a high performance computing cluster to extract trends from the narratives of victims of suicide.
- Cleaned, preprocessed, and **feature engineered** a confidential dataset of over 400,000 narratives.
- Applied **natural language processing** techniques to identify relevant cases and enhance the annotation process.
- Documented findings with reports and visualizations to communicate findings to both the research team and the academic community through publication.

PROJECTS

Predicting Survival in the ICU **Ann Arbor, MI**
Project Developer *January 2025 – March 2025*
- Developed logistic regression and RNN models to predict survival of patients in the ICU using a public dataset using **Scikit-learn** and **PyTorch**.
- Performed data cleaning, preprocessing, and feature engineering to prepare the data for model training.
- Fine-tuned and evaluated the models using **cross-validation** and **grid search**.

SKILLS

Programming	C++, Python, R, SQL, Java
Python	PyTorch, Scikit-learn, NumPy, Pandas, Matplotlib, NLTK, spaCy
Software	Git, VS Code, Microsoft Office Suite, Google Suite, Snowflake, Collibra, Alation, Manta