# HANNAH VANWINGEN-ECKERTOVA

# **Software Engineer, Data Analysis & Visualization**

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nvanova.github.io

From research and design to development and testing, I advance software capabilities to support impact-driven initiatives. With experience working in academic and corporate environments, I leverage statistically informed techniques and accessible visual engagement methods to communicate data-driven stories. I am passionate about applying the latest tools to develop solutions for complex challenges in data analysis.

#### **WORK EXPERIENCE**

## Lark Health Technologies

#### Software Engineer II, Data Engineering and Visualization

June - Dec. 2023

Remote

- Implemented data parsing, transformation, and quality assurance pipelines for timely delivery of key business metrics
- Initiated data tracking using the Soda data quality platform to enhance observability and bolster data reliability
- Optimized complex data processing, ensuring timely delivery while minimizing resource utilization
- Supported a newly hired data analytics team in documenting data models, workflows, best practices, and troubleshooting

## Software Engineer I, Data Engineering and Visualization

Jan. 2022 – June 2023

Remote

- Led the development of a configurable and automated data reporting service in React using JavaScript/TypeScript and Next.js
- Collaborated with cross-functional teams to design and implement data visualizations using D3.js
- Demonstrated commitment to ensuring reliable data systems performance by participating in on-call responsibilities using Opsgenie
- Documented product requirements and metric calculation details to maintain data integrity and capture best practices for further development and addressing common issues

# Michigan Aerospace Corporation

## Research Scientist, Data Visualization

July 2019 - June 2020

Ann Arbor, MI

- Led the development of a highly interactive and configurable D3.js data visualization library that enables users to explore complex datasets for time series, confusion matrices, stacked bar graphs, 2D Gaussian distributions, and networks
- Wrote a grant proposal to the US Department of Energy for a datasharing platform that automates the detection of data types and anomalies and displays an optimal and interactive data visualization

# University of Michigan Digital Projects Studio

#### **Data Visualization Intern**

Ann Arbor, MI

- Collaborated in designing and implementing a unique and interactive multidimensional data visualization for text citations using D3.js
- Created an interactive tutorial for network-based data modeling and statistical analysis in Python using Jupyter Notebooks, providing an accessible platform to learn and apply cutting-edge statistics

#### **EDUCATION**

B.S.

Physics, Complex Systems, Computer Science

#### **University of Michigan**

Sept. 2015 - Aug. 2019

#### **CERTIFICATIONS**

# Techniques and Frameworks for Data Exploration

Oct. 2022 - Dec. 2022

## **SKILLS**

**Data Science** 

Full Stack Development Interactive Visualization

ETL Development Technical Writing

#### Languages

- Python Advanced
- JavaScript Advanced
- TypeScript Advanced
- HTML/CSS Advanced
- SQL Advanced
- Scala Experienced

#### Frameworks

- React Advanced
- Next.js Advanced
- Vue.js Experienced

#### Libraries

- d3.js Advanced
- jQuery Experienced
- Pandas Experienced
- NumPy Experienced
- scikit-learn Experienced
- Shapely Experienced
- TensorFlow Learning

#### Platforms/Tools

- Git Advanced
- Jupyter Notebooks Advanced
- Snowflake Advanced
- Databricks Advanced
- AWS Experienced
- Docker Experienced
- Spark Experienced
- Airflow Experienced