JANIA VANDEVOORDE

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EDUCATION

University of Michigan • Ann Arbor, MI — August 2025 – December 2026
Master of Science - Computer Science and Engineering

Brown University • Providence, RI — September 2021 – May 2025
Bachelor of Science - Computer Science & *Bachelor of Science - Statistics* — GPA: 4.0

- **Relevant Courses:** Machine Learning, Deep Learning, Systems for Machine Learning, Computer Vision, Data Science, Applied Regression, Computer Systems, Data Structures, Advanced Algorithms, Theory of Computation, Programming Languages
- **Head Teaching Assistant:** Discrete Mathematics, Data Structures, Machine Learning

TECHNICAL TOOLS & SKILLS

- **Programming Languages:** Python, R, Java, C#, C/C++, JavaScript, TypeScript, Go, Alloy
- **Technologies:** CUDA, SQL, Git, Docker, LaTeX, TensorFlow, PyTorch, scikit-learn, React, Jira
- **Global-minded:** traveled to 40+ countries, lived in 7 countries

WORK EXPERIENCE

Software Engineer Intern @ MongoDB (Cloud Insights & Telemetry) • New York, NY — June 2025 – Present

- Develop an end-to-end job handling system to backfill historical hardware metrics for over 175,500 customer clusters, serving as the final and most critical phase in the migration to a dedicated observability platform
- Implement checkpointing and retry logic to reliably track progress and prevent data duplication across distributed jobs
- Expand the standalone service's metric ingestion API to include a synchronous bulk endpoint, reducing per-request overhead and introducing the collection of granular internal health metrics in Prometheus

Research Assistant @ Brown School of Public Health • Providence, RI — August 2024 – December 2024

- Developed a scalable discretization algorithm for data preprocessing, leading to a 27% improvement in accuracy of integer risk score models for detecting adherence to treatment among Peruvian adolescents with tuberculosis
- Implemented randomized rounding in model initialization to enhance warm-start efficiency, reducing training time by 15%
- Streamlined deployment of risk score modeling across healthcare applications through an accessible R package

Software Engineer Intern @ MongoDB (.NET/C# Driver) • New York, NY — June 2024 – August 2024

- Designed and implemented an end-to-end solution for migrating query execution from the client to the server, improving performance by circumventing client memory bottleneck
- Enhanced the driver's Microsoft OData adapter library by applying metaprogramming techniques to support advanced query functions, including time and substring operations
- Resolved translation bugs, ensuring comprehensive handling of serialized data formats and nullable numeric conversions

Data Science Intern @ Takachar • Remote — January 2024

- Developed a spike-detection algorithm to monitor biomass weight fluctuations in agricultural waste reactors, analyzing over 75 datasets and transforming a project that directly contributed to reducing carbon emissions

TECHNICAL PROJECTS

Complete projects available on my website.

NeurANIL — February 2025 – May 2025

- Implemented a deep learning model using meta-learning architectures in PyTorch to improve neural decoding on brain signals, outperforming benchmarked models (MLP, LSTM, Transformer, CRNN, Gaussian Naive Bayes) on 78% of test data

Colorizer — April 2024 – May 2024

- Trained and deployed a convolutional neural network using the VGG-19 U-Net architecture in TensorFlow to restore color in grayscale images, integrating techniques from multiple research papers

Data Spirits — February 2024 – May 2024

- Built a machine learning pipeline for data interpolation and model selection using Lasso, Ridge, ElasticNet, and XGBoost to analyze the correlation between alcohol consumption and sports betting volume and predict future trends

ACCOMPLISHMENTS & AWARDS

NCAA Division I Women's Rugby Athlete — September 2021 – May 2025

- Scholastic All-American (2023, 2024), 7's National Champion (2023, 2024), Strength & Conditioning Athlete of the Year (2024)

Distinguished Senior Prize in Computer Science — May 2025

- Awarded to 24 students earning degrees in Computer Science for their academic excellence and service to the department