JANIA VANDEVOORDE

+1 (401) 451-0812 | jania@vdvoorde.com | LinkedIn | GitHub | Website

EDUCATION

University of Michigan • Ann Arbor, MI

August 2025 - December 2026

Master of Science - Computer Science and Engineering

Relevant Courses: Natural Language Processing, Database Management Systems, Information Retrieval

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 - August 2025

- Developed an end-to-end framework to backfill historical hardware metrics for over 175,500+ customer—nearly 1 billion metric documents—serving as the most critical phase in migrating to a dedicated observability platform
- Implemented checkpointing and retry logic to reliably track progress and prevent data duplication across distributed jobs
- Expanded 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 April 2024 - May 2024

Colorizer

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