

Donovan Below

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SUMMARY

Master of Computer Science student at the University of Illinois Urbana-Champaign with a BSE in Computer Science and two years of software consulting experience. Experienced building data pipelines, migrations, and automation tooling, and translating technical requirements into solutions for stakeholders. Interested in software engineering, data, and AI/ML.

EDUCATION

University of Illinois Urbana-Champaign

Master of Computer Science, Data Science Track

Focused Coursework: Distributed Systems, Data Mining, Deep Learning

Urbana-Champaign, IL

2026 - 2027 (expected)

University of Michigan

Bachelor of Science in Engineering in Computer Science

Honors and Awards: Hail Scholarship Recipient, Cum Laude, Dean's List, University Honors

Focused Coursework: Machine Learning, Computer Vision, Autonomous Robotics, Computational Linguistics, Statistics

Ann Arbor, MI

2020 - 2024

SKILLS

Python, C++, SQL (SSMS, SSIS), AWS, ETL/ELT, NumPy, Pandas, PyTorch, Scikit-learn, Matplotlib, Ansible, Excel

EXPERIENCE

Siemens DISW

Software Implementation Consultant

Chicago, IL

June 2024 - August 2026

- Led multiple large-scale data migrations, mapping, and verification activities for a major legacy aerospace and defense program, contributing to renewal and expansion of partnership
- Developed automated test data generation utility, cutting manual access control testing effort by 30% (Python)
- Designed and maintained an automated environment provisioning and testing pipeline using Ansible and AWS for enterprise product lifecycle management systems (AWS)
- Engineered a first-of-its-kind 5G adaptation of MiR AMRs to enable Simove Fleet Manager integration via VDA5050, resulting in global automotive OEM sales partnerships worth \$3M+
- Created custom CAD dataset visualization tool enabling design leads to view 3D schedule progress natively in NX instead of relying on 2D snapshots and separate software (C++)

Urban Science

Data Analyst Intern

Detroit, MI

May 2023 - May 2024

- Delivered Excel-based dealer health analytics dashboards for General Motors executives, providing visibility into dealerships' strategy, standings, and stability, contributing to \$250,000 in new data deliverables (Excel)
- Developed and deployed SQL bug fixes impacting ~25% of General Motors' dealer network, improving data reliability and dealer standings accuracy (SQL)
- Led a server-to-server migration in SSMS and SSIS, transferring SQL stored procedures, jobs, connections, and queries across environments (SSMS, SSIS, SQL)

PROJECTS

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Social Sentiment-Augmented Stock Prediction Engine

- Engineered a multimodal AI engine using Tesseract OCR, HuggingFace Transformers, and XGBoost to generate daily stock predictions using data from financial data and Reddit Community Sentiment (Python, PRAW, SQLite, Pandas, NumPy, XGBoost, Matplotlib)
- Analyzed and stored 100,000+ Reddit posts in a relational database alongside real-time financial signals
- Deployed scalable, cost-effective architecture on AWS (EC2, Lambda, S3, EventBridge)

Semantic Word Puzzle Solver

- Built a Selenium-based solver using a continuous bag of words model and cosine similarity to extract semantic relationship between goal and guess word (Python, Gensim, NLTK, Selenium)
- Triangulates goal word based on a corpus of 20,000+ valid words scraped from 5,000+ open-source texts
- Deployed via cloud based architecture on AWS (EC2, Lambda, S3, EventBridge) to deliver daily puzzle spoilers

INTERESTS

- Basketball, guitar, vintage cars, tattoos, running, sports analytics, euchre, oatmeal