

Donovin Emerson

 [donovinemerson](#)

 donovin@donovinemerson.com

 [donovinemerson.com](#)

 [doemerson123](#)

EDUCATION

Master of Science – December 2022

Data Science: Artificial Intelligence concentration
Northwestern University

Bachelor of Arts

Management Information Systems
Wichita State University

SUMMARY

Evangelist for unlocking new value from existing data. Skilled influencer, intrapreneur, and leader of high-value projects in complex cloud/hybrid cloud environments. Upskilled with master's to focus on systems that improve decision making.

EXPERIENCE

Graduate Student

Northwestern University

January 2020 – December 2022

Remote – Chicago, IL

- Developed low cost convolutional neural network deepfake detector using Keras and Grad-CAM that explained what was important to the prediction of an image using overlaid activation layer heatmaps by training in AWS on 25 GB of web scraped deepfakes – top model trained in 177 minutes, F1 of 99%
- Containerized and served explainable deepfake detector using Docker and Streamlit
- Implemented chatbot to speed enterprise software selection using NeuroSYS and BERT MLP to resolve coreferences and simplify natural language (NL) paragraphs, then created NL queryable parts of speech knowledge graph dynamically using Spacy and Networkx – accuracy inversely related to corpus size
- Studied methods to improve statistical robustness in low signal to noise domains - combinatorial cross validation, clustered MDA feature selection, (non-)ergodic metrics, and fractional timeseries differencing
- Optimized linear, non-linear, multi-objective, stochastic, metaheuristic, and network problem spaces

Data Science Intern

Strata Decision Technology

June 2022 – August 2022

Remote – Chicago, IL

- Planned and executed project to measure nine AHRQ Patient Safety Indicators in 10 weeks using Jira
- Identified necessary external data and automated ingestion into MySQL data mart using Python
- Extended data mart extraction queries and data model to persist necessary internal data using MySQL
- Improved query performance on multi-million record dataset by updating indexes, composite fields, and joins to reduce execution time from days to hours using SQL Server Management Studio execution plan
- Developed new waterfall visualization and improved existing rare-event visualization using a novel normalization method using Matplotlib and Seaborn then presented outcomes to the executive team

Digital Product Manager

Koch Agriculture and Energy Services – Koch Industries

November 2019 – November 2020

Wichita, KS

- Led six to nine member scrum team responsible for key Bring Your Own Device (BYOD) mobile native logistics app using AWS microservices which blended frequent external consulting engagements (RFP/negotiations) with an in-house on/offshore development team to enable \$5 million of value
- Collaborated with data science and analytics teams to reduce arrival time bottlenecks at shipping terminals using mobile generated timeseries geospatial data in MongoDB to serve truck level arrival predictions via AWS microservices to Salesforce dashboards to enable \$1 million+ of value

Business Systems Analyst 3

Flint Hills Resources – Koch Industries

November 2014 – November 2019

Wichita, KS

- Facilitated collection, evaluation, and cost estimation of functional and integration requirements (ETL, ODS, data warehouse) for a \$10 million commodity trade risk management (CTRM) buy vs build decision focused on customer relationship management (CRM) and regulatory compliance modules
- Led four member Kanban team enhancing a pool of 130 commercial applications (Oracle EBS, Salesforce, CPQ, .NET, Qlik, Informatica) and responsible for 15+ centers of excellence committees led by functional owners as well as the executive steering approval process to enable \$10.8 million of value
- Managed and enhanced, as functional owner, enterprise regulatory, contract, trade execution, ERP, and CRM systems most using Informatica batch automation with ETL, EDI, and API upstream integrations and downstream general ledger system, data mart, data warehouse, and AWS data lake integrations