J. Michael McCabe

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EDUCATION

University of Colorado Boulder, Boulder, CO
Ph.D. in Machine Learning and Scientific Computing in Computer Science, Expected 2024

Northwestern University: Weinberg College of Arts and Sciences, Evanston, IL
Bachelor of Arts in Economics*,* June 2013

GRE: 170 Verbal/169 Quantitative/5.5 Writing
COURSEWORK: Statistical Learning, Machine Learning, Neural Networks and Deep Learning, Data Manipulation at Scale: Systems and Algorithms, Functional Programming Design in Scala, Algorithms: Design and Analysis, Parallel Programming, Deterministic Optimization, Convex Optimization, Bayesian Methods for Machine Learning, and more
AWARDS: Siemens Scholarship Recipient, Design Award for Engineering Design and Communication, Nominated for Guetzkow Prize for Outstanding Senior Research Paper in Int Studies, Siemens "You Answered" Recognition, Eccellarator Performance Award, Ayasdi "Flare" Performance Award

WORK EXPERIENCE

Ayasdi, Menlo Park, CA, *Data Scientist*   (11/16-7/19)

- Designed and implemented Machine Learning and Topological Data Analysis pipelines for healthcare, government, and financial services clients using both the proprietary tools developed by Ayasdi and the open source scientific Python ecosystem.
- Worked closely with product and engineering teams in a research and development capability in order to develop potential new platform capabilities and line up candidate features for deployment into production.
- Developed an improved search algorithm to exploit structure of a non-convex unsupervised learning problem reducing the run-time of a key, long standing software component to a quarter of the original run time.

Eccella, New York, NY, *Senior Consultant*   (2/15-11/16)

- Architected and managed large scale data integration projects involving 30+ heterogeneous systems and multiple business organizations from scoping through design, development, testing, and production support
- Developed automation tools in Python and Java that integrate with enterprise ETL platforms in order to decrease development time of certain types of broad data flow mappings by approximately 80%
- Coordinated with client data analysts in order to identify data pain points and implement automated data quality tracking metrics and solutions
- Led internal efforts to develop standards and education plan for transitioning existing employees into emerging Data Science consulting practice

Siemens Healthcare, Malvern, PA, *Consultant*   (7/13-2/15)

- Promoted to full consultant within first year with the company after completing more than twenty projects as a lead consultant, often serving both as a product expert and in a project management capacity
- Implemented custom C# and XSLT solutions to tailor larger product features to specific customer needs, particularly with regards to Health Information Exchange (HIE) integration and cross-enterprise secure messaging
- Managed product betas at multiple hospitals working closely with the development team in order to identify potential defects and develop processes to enable clients to hit their Meaningful Use Continuity of Care metrics with minimal disruption of existing workflows

TECHNICAL SKILLS

Languages: Python, SQL, Scala, Java, Matlab
Frameworks: SciPy Ecosystem, TensorFlow, PyTorch, Spark, PySpark
Databases: Oracle, MySQL, MS SQL Server, SQLite, Postgres, HDFS