

Mark D. Wagy

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Professional Experience

Dartmouth College

Hanover, New Hampshire, USA

POSTDOCTORAL RESEARCH ASSOCIATE *Center for Cognitive Neuroscience*

2016 - Present

- Implement methods for pattern discovery in data sequences
- Develop novel word embedding algorithm for natural language analysis
- Mentor undergraduate and graduate students in machine learning and research practices

Amida

Washington DC, USA (remote)

DATA VISUALIZATION CONSULTANT *World Bank Innovation and Competitiveness Project*

2016

- Planned and executed visualization strategy for World Bank initiative ahead of schedule
- Implemented visualizations for geographical and time-series economic indicators

University of Vermont

Burlington, Vermont, USA

NATIONAL SCIENCE FOUNDATION IGERT RESEARCH FELLOW *Morphology Evolution and Cognition Laboratory*

2012 - 2016

- Employed advanced statistical techniques for finding trends in extremely sparse datasets
- Developed tools and methodologies for obtaining and analyzing user-contributed data features
- Architected solutions for database, middleware and front-end data collection and user-interactive system
- Published research results in peer-reviewed journals and conference proceedings

Massachusetts Institute of Technology

Cambridge, Massachusetts, USA

SOFTWARE ENGINEERING CONSULTANT *Computer Science and Artificial Intelligence Laboratory*

2011 - 2012

- Engineered machine learning algorithms on massively distributed architecture
- Worked with industry partners to identify theory behind learning algorithms

Lexis Nexis

Minneapolis, Minnesota, USA

SENIOR SOFTWARE ENGINEER *Risk and Information Analytics Group*

2008 - 2012

- Led development efforts for migration from SQL to NOSQL data stores
- Implemented Big Data and business intelligence solutions

Medtronic

Minneapolis, Minnesota, USA

SCIENTIST *Corporate Science and Technology*

2005 - 2008

- Defined and implemented data distribution system that gained company-wide usage by numerical modelers
- Devised computer vision methods for cross-disciplinary biomechanics research
- Designed data visualization platform for physical material properties

Medtronic

Minneapolis, Minnesota, USA

INTERN *Advanced Concepts and Leads Research Groups*

2002 - 2003

- Explored pattern recognition strategies for electrocardiogram signals
- Wrote white paper on artificial neural networks for electrocardiogram analysis

Education

PhD *Computer Science* UNIVERSITY OF VERMONT

Burlington, Vermont, USA

BS *Computer Science* UNIVERSITY OF MINNESOTA

Minneapolis, Minnesota, USA

BA *Physics and Mathematics* LEWIS AND CLARK COLLEGE

Portland, Oregon, USA

Skills

Languages Python, R, SQL, ECL, Javascript, Java, C/C++, Matlab, Scala

Tools MySQL, PostgreSQL, ggplot, D3.js, HPCC, MongoDB, Redis, Pentaho BI, Spark, Amazon Web Services, Weka