

Evan D. Oman

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Education

- University of MN Duluth** *M.S. Applied Mathematics, CS Minor* **May 2015**
- ▷ Studied under Teaching Assistantship and Chancellor's Fellowship, 20 credits of graduate level CS coursework, **GPA: 3.67**
 - ▷ Key Courses: Artificial Intelligence(Java, Prolog), Computer Graphics(C/C++), Linear Programming, Natural Language Processing (Perl), Advanced Data Structures(C/C++), Theory of Computation, Graph Theory, and Dynamical Systems
- Bethany Lutheran College** *B.A. Mathematics* **May 2013**
- ▷ Graduated Magna Cum Laude with **in-major GPA of 3.8** while keeping several jobs and working to graduate in 3 years
 - ▷ Key Courses: Numerical Analysis; C# Programming I + II; Rings, Modules, and Homological Algebra, Statics + Dynamics

Experience

- Black River Systems Co.** *Engineer* **May 2015 - Present**
- ▷ Develop algorithms and systems for intelligence, surveillance, and reconnaissance contracts with a variety of DoD agencies
 - ▷ Perform domain background research, rapidly develop proof-of-concept prototypes, and build software using Java, Matlab
- Salt IO** *Data Science Consultant (Part Time)* **Nov. 2015 - Sep. 2016**
- ▷ Assisted with a variety of data preparation and cleaning tasks on mortgage securitization data using Apache Spark (Scala)
 - ▷ Researched and implemented NLP tools for info. extraction and conversational agent problems (Spark, CoreNLP, Python)
- Open Systems International** *Software Engineering Intern* **May 2014 - Nov. 2014**
- ▷ Completed multiple production quality enhancements on a large power distribution network optimization product. Required rapidly developing of understanding of domain concepts and a large code base written in an unfamiliar language(C)
 - ▷ Participated in regular team code reviews, sprint planning sessions, and intern training presentations on a variety of topics
- Edmentum** *Software Development Intern* **May 2013 - Aug. 2013**
- ▷ Developed a physics coursework web client for use within the Edmentum education suite while on an agile team of interns
 - ▷ Performed sprint planning, product design, code reviews, and product demonstrations; employed JavaScript design patterns
- Eckhardt Optics LLC** *Software Engineering Intern* **May 2012 - Aug. 2012**
- ▷ Constructed a browser client which allows software teams to view Bugzilla bugs in a Kanban Board graphical representation

Projects

- Restaurant Review Aspect/Sentiment Extraction(Spark, Scala)** **Salt IO**
- ▷ Extracted aspects and corresponding sentiments from online reviews of several restaurants using CoreNLP, Spark, and Scala
 - ▷ Researched info. extraction algorithms, tested different methods, processed & cleaned data, and communicated performance
- Feeder Reconfiguration with Forecast Data(C)** **Open Systems International**
- ▷ Enhanced OSI's Feeder Reconfiguration product to allow the use of forecast data to drive the network optimization module
 - ▷ Achieved this objective by generalizing the program flow to use real time or forecast data, modifying the user interface and databases to allow run mode specification, performing a variety of testing procedures, and updating documentation
- Dynamical Systems Research(Python, Mathematica)** **University of MN Duluth**
- ▷ Studied behavior of singular perturbations on a family of functions using several numerical, visual, and analytical techniques
 - ▷ Managed to prove the existence of several infinite parameter accumulations. Funded by a paid Summer Research Fellowship
- Decision List for Word Sense Disambiguation(Perl)** **University of MN Duluth**
- ▷ Implemented a machine learning method which used context to determine the intended sense/meaning of a specified word
 - ▷ Applied object oriented structures within Perl to develop a list of "collocation" factors from the training data and sort them according to their correlative strength. When applied to a test set the algorithm achieved 82% accuracy
- An Introduction to Computational Cubical Homology(Some Python)** **Bethany Lutheran College**
- ▷ Investigated the theory of Computational Homology with a focus on its application to cubical data analysis. The project culminated in an application of existing tools(the CHomP utility) to a geometric analysis of Minecraft block data

Skills

Languages: Have worked in Java, Scala(top 5% on Stack Overflow), C, R, Perl, Python, L^AT_EX; Apache Spark(top 5% on Stack Overflow); Some knowledge of C++, Matlab, Kotlin

Applications/Tools: Gradle, JUnit, IntelliJ, git(Github: EvanOman), Apache Spark, Windows + Linux CLI

Scores/Certificates: ACT 33(99%), GRE V: 160(84%) Q: 163(87%); Coursera: R Programming, Getting and Cleaning Data, Statistical Inference, Exploratory Data Analysis, Regression Models, Reproducible Research, Practical Machine Learning

Leadership Experience: BLC: Student Body President, Resident Assistant, Math/Physics tutor, Tour Guide, Student Club Founder; UMD: Teaching Assistant for Finite Math, Calculus For the Natural Sciences, Calculus III, Differential Equations