Evan D. Oman

4369 Rahn Rd.
Eagan, MN 55122

www.evanoman.com
612.207.9816
evan058@gmail.com

Education

University of MN Duluth — ***M.S. Applied Mathematics, CS Minor*** — **May 2015**
- ▷ Studied under Teaching Assistantship and Chancellor's Fellowship, obtained 20 credits of graduate level CS, **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, 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. — ***Systems/Algorithm Engineer*** — **May 2015 - Present**
- ▷ Develop algorithms and systems for intelligence, surveillance, and reconnaissance contracts for a variety of DoD agencies
- ▷ Obtained Secret Level DoD clearance, time split between background research and `C/C++/MATLAB` prototyping

Salt IO — ***Data Science Consultant*** — **November 2015 - Present**
- ▷ Part time position. Assist in securities credit modeling and NLP analysis using Apache Spark, Scala, and Python

Open Systems International — ***Software Engineering Intern*** — **May 2014 - November 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 training presentations about a variety of topics

Edmentum — ***Software Development Intern*** — **May 2013 - August 2013**
- ▷ Developed a coursework web client for use within the Edmentum education suite(below) while on an agile (intern)team
- ▷ Performed sprint planning, product design, code reviews, and product demos; employed JavaScript design patterns

Eckhardt Optics LLC — ***Software Engineering Intern*** — **May 2012 - August 2012**
- ▷ Constructed a browser client which allows employer's team to view Bugzilla bugs in a Kanban graphical representation

Projects

Feeder Reconfiguration with Forecast Data(C) — **Open Systems International**
- ▷ Enhanced OSI's Feeder Reconfiguration product to allow the use of forecast data for all network optimization objectives
- ▷ 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 the dynamics of singular perturbations of a family of functions using numerical, visual, and analytical techniques.
- ▷ Managed to prove the existence of several infinite parameter accumulations. Received paid Summer Research Fellowship.

Decision List for Word Sense Disambiguation(Perl) — **University of MN Duluth**
- ▷ Implemented a machine learning method which used local context to determine the intended sense 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

Tracker Web Client(HTML, CSS, JavaScript) — **Edmentum**
- ▷ Tracker is a video analysis and physics modeling tool written in Java and used by Edmentum for physics courses. This project aimed to created a client-side web app allowing students to view Tracker content without browser plugins or Java
- ▷ Developed a full-featured video player which animated individual GIF frames, implemented several numerical calculus algorithms, constructed interactive data displays, and parsed Tracker(XML) files for position and video data

***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 `C`, `R`, `Java`, `Scala`, `Perl`, `JavaScript`, LaTeX; Some knowledge of `C++`, `Python`, `MATLAB`

Applications/Tools: Mathematica, Windows+Linux CLI, WinCVS, Github(EvanOman), RStudio, Apache Spark, IntelliJ

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