

# MaggieCasale

## contact

10977 Alison Ct.  
Inver Grove Heights,  
MN 55077

(651) 276-8041

casal033@umn.edu

<http://casal033.github.io>

## languages

Java, JavaScript,  
HTML, CSS, Clojure,  
Swift, Objective-C,  
C, Ruby, Bash Shell, &  
Unix Shell

## libraries & tools

MEAN stack  
(MongoDB, Express,  
AngularJS, Node.js),  
Xcode, GitHub,  
Subversion, Gremlin,  
TinkerPop, Perl,  
Jython, VisualVM,  
Graphviz, RStudio,  
L<sup>A</sup>T<sub>E</sub>X & Photoshop

## databases

MongoDB,  
Neo4j,  
& Titan

## systems

Linux,  
Mac,  
& Windows

## processes

Agile Development,  
Version Control,  
Pair-programming,  
& Unit Testing

## education

2012–2016 **B.A.** in Computer Sciences [3.307]  
**Minor** in Mathematics  
Expected Graduation: May 2016

University of Minnesota, Morris (UMM)

## coursework

Data Structures, Development of Software Design, Algorithms & Computability, Human-Computer Interface Design, Models of Computing Systems, Evolutionary Computation & Artificial Intelligence, Senior Seminar

## experience

Fall '15–Now **Morris Academic Partnership with Professor Nic McPhee**

Morris, MN

*Data Manager & Analyst*

- Using graph database tools (Neo4j, Titan, TinkerPop, Gremlin) to explore ancestry runs in evolutionary computation
- Understanding how evolutionary factors such as selection, recombination, and mutation work together to construct novel improvements
- Working with Graphviz to create visualizations of these runs to better analyze how individuals improve from generation to generation
- Presented this work in the Undergraduate Research Symposium at UMM
- Continuing work involves a research paper for GTPT at Ann Arbor this May, as well as a visualization workshop for GECCO in Denver this May

Fall '15

**Senior Seminar**

*Research, Technical Writing, and Presentation*

- Completed an in-depth survey of research literature in assistive technologies, with a focus on touchscreen interaction for motor-impaired users.
- Analyzed various published works, synthesized their contents, and produced a six-page research paper on my work. This work was presented formally in a conference setting, December 5th.

Summer '15

**Morris Academic Partnership with Professor K.K. Lamberty**

Morris, MN

*Web/Application Designer & Developer*

- Continued development on WordRiver & StoryBuilder, a MEAN stack website & iOS application
- Redesigned layout of WordRiver interface & API models
- Modified StoryBuilder to access relevant information from WordRiver
- Presented demo of work at Interaction Design and Children conference in Boston, July 2015

Spring '15

**Directed Study: Web Design & Development**

Morris, MN

*Web Designer & Developer*

- Continued development on URSA Major, a MEAN stack website for the University of Minnesota, Morris' Undergraduate Research Symposium
- Kept group of five on task and organized
- Added testing & error messages for development
- Fixed bugs & improved upon the website's features

## interests

**professional:** I ♥ programming, hard work, being detail-oriented, organization, group work, research, documenting, and management.

**personal:** photography, traveling, golfing, scuba diving, being with friends or family, and learning new games.

