MATTHEW CAPPLEMAN

735 University Avenue • Sewanee, Tennessee 37383 • matt.cappleman@gmail.com
Home: 516 N Dillard St • Winter Garden, Florida 34787• 407-797-4748

EDUCATION

Sewanee: The University of the South, Sewanee, TN Bachelor of Science May 2014

- Major: Mathematics; Minor: Computer Science
- *Presidential Merit Scholarship*, four year award based on high-school performance and leadership

Mathematics Courses

- Calculus 1,2, and 3, Linear Algebra, Discrete Mathematical Structures, Functions of a Complex Variable, Analysis 1, Mathematical Modeling, History of Mathematics, Topology, Probability and Statistics 1 and 2

Computer Science Courses

- Introduction to Modeling and Programming, Data Structures, Principles of Interactive Computer Graphics, Database Design with Web Applications, Robotics, Multimedia Programming and Design, Analysis of Algorithms

Programming Languages

- Java, Mathematica, R, MySQL, JavaScript, jQuery, Go, AngularJS, Jasmine, NodeJS, MongoDB, PHP, CSS, HTML5, Processing, React, Jest, Redis, RabbitMQ, Nginx

Previous and Current Software Engineer Jobs

FanHero February 2016 - Current

- Full Stack Javascript Engineer utilizing Angular 1.4, NodeJS, MongoDB, and Nginx.
- Worked on the our architecture of microservices, deploying, debugging, and improvements each of them.
- Implemented a Content Management System web backend for our clients iOS and Android Apps utilizing Angular 1.4, HTML5, and CSS.

Mindtree June 2014 - February 2016

- Software Engineer specializing in Java and Frontend Development. Had the pleasure of working on multiple projects for varying companies.
    - Worked for Marriott Vacation Club Worldwide recreating their web pages. UI Development implementing a Flat UI experience with HTML5, CSS, jQuery, Javascript, and Bootstrap.
    - Worked on a project for Wolters Kluwer. Implemented a Single Page Application with AngularJS with a .NET backend and writing unit tests with Jasmine and Chutzpah.
    - Worked for ACI Worldwide fixing and debugging their current core code, which utilized the Struts framework.
    - Spent the first two months at Mindtree in Java Training, which mainly focused on becoming comfortable with Maven Integration and Spring frameworks.

COLLEGE PROJECTS & PRESENTATIONS

Mathematics of Optical Illusions Spring 2013

- Worked closely with Dr. Doug Drinen on modeling optical illusions with mathematical theories and functions; upon completion of three different projects, presented these projects at the Sewanee-Rhodes-Hendrix Math and Computer Science Symposium:
    - Created an object so if you looked at it from a certain angle it looked like a cube, but if you turned it slightly you would see that each face had a different curve applied to it. I then used a 3D printer to create a plastic replica of this object.
    - Created a polar function that I used to replicate the image of a bird and found its center of mass and applied a polynomial function to it around its center of mass. Then I printed it out on a 3D printer as well and it was then able to balance on its center of mass.
    - Printed out a cylinder and added a mirror that wrapped around it; applied the physics of mirrors in order to print a picture on a normal 2D printer so that if wrapped around the mirror it displays the original picture.

BCS Computer Rankings Fall 2013-Spring 2014

- For my Senior Talk in the Mathematics Department, I created my own computer-rating algorithm for college football teams; I presented my algorithms to the Mathematics Professors and students in a 30 minute presentation and then again presented this at the Sewanee-Rhodes-Hendrix Math and Computer Science Symposium:
    - Instead of using only wins and losses like traditional BCS Computer Rankings, I based my rating algorithm on the dominance of each drive by a team.
    - I used two different models in order to do this. I first recreated a model made by Dr. David Romer which gave an expected point value to each yard line. From there I recreated the Bradley-Terry Maximum Likelihood model to come up with ratings for each team based on how they performed on each drive.