

# Justin Headley

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## EDUCATION

### UNIVERSITY OF ALABAMA

#### MS IN COMPUTER ENGINEERING

May 2015 | Tuscaloosa, AL

Cum. GPA: 3.8 / 4.0

#### BS IN COMPUTER ENGINEERING AND MATH

May 2009 | Tuscaloosa, AL

Minor in Computer Science

Cum. GPA: 4.0 / 4.0

## LINKS

Github:// [JKHeadley](#)

LinkedIn:// [justinkheadley](#)

## CERTIFICATIONS

### COURSERA

April 2016 - Machine Learning

## PROJECTS

### UA ASTROBOTICS

- NASA Regolith Mining Competition
- 2010 - 2014
- Roles: Team Lead, Systems Engineer

### REST-HAPI

- A RESTful API generator built around the hapi framework and mongoose ODM.
- Combines relational db structure with NoSQL flexibility via API routes.
- Fully tested and documented.

## SKILLS

### PROGRAMMING

Languages:

C • C++ • C# • Matlab

Javascript • HTML • CSS

Objective C • Swift

Assembly • VHDL • PLC ladder logic

Frameworks:

Entity Framework

Nodejs • gulpjs • Angularjs • hapijs

DevOps:

AWS • CI • Git

Database:

SQL Server • MySQL • MongoDB

### CAD

Solidworks • Google SketchUp

## EXPERIENCE

### SCAL.IO | SOFTWARE ENGINEER

January 2016 – Present | San Francisco, CA

- Full stack developer for mobile and web apps.
- Specialize in development with Angularjs, Nodejs, hapijs, MongoDB, and MySQL.
- Management of Amazon Web Services including EC2, S3, and RDS.
- iOS/Swift development.

### CENTER FOR ADVANCED PUBLIC SAFETY (CAPS) | ASSISTANT RESEARCH ENGINEER

August 2014 – December 2015 | Tuscaloosa, AL

- Worked on various .NET Entity Framework applications
- Designed a multi-app authentication system that managed privileges, roles, groups, organizations, and applications
- Developed a data access layer Nuget package via Powershell and T4 emphasizing best practices such as IoC, repository pattern, and separation of concerns.

### NASA ROBOTICS ACADEMY - SMS | TEAM LEAD

June 2009 – August 2009 | Huntsville, AL

- Simulating motion based control of a MARCbot using a wiimote.
- Designed CAD model and simulated within Google SketchUp and Microsoft Robotics Developer Studio.
- Implemented LEGO NXT model via Microsoft Robotics Developer Studio.

## RESEARCH

### UA ASTROBOTICS LAB | MASTERS RESEARCH

Jan 2014 – Jan 2015 | Tuscaloosa, AL

- Modeled power usage of a percussive bucket wheel excavator via MATLAB.
- Supplemented model with an experimental prototype.

### NASA ASGC GRANT | GRADUATE RESEARCH FELLOW

Aug 2012 – May 2013 | Tuscaloosa, AL

- Developed motion algorithms for TRIGON modular robotic system.
- Tested algorithms via Microsoft Robotics Developer Studio simulation.

### NASA ASGC GRANT | GRADUATE RESEARCH FELLOW

Aug 2010 – May 2011 | Tuscaloosa, AL

- Designed and constructed modular robotic lunar excavator.

### SOUTHERN RESEARCH INSTITUE | UNDERGRADUATE RESEARCHER

Aug 2009 – May 2010 | Tuscaloosa, AL

- Computer vision based object tracking via SIFT algorithm in MATLAB.

## AWARDS

- NASA Regolith Mining Competition 2014 2nd Place
- NASA Lunabotics 2012 Grand Prize
- Graduated Summa Cum Laude
- Graduated in the University Honors Program
- Nominated for ASPE Student Engineer of the Year Award
- Nominated for Capstone Engineering Society Outstanding Senior Award
- Electrical and Computer Engineering Senior Meritorious Award
- Tau Beta Pi Outstanding Junior Award
- Electrical and Computer Engineering Sophomore Meritorious Award