

## Overview

Avid rock climber with a passion for programming in web and machine learning applications: Image recognition, NLU, computer vision, autonomous navigation systems and other deep learning topics. With 2+ years of industry experience in practical application of facial recognition in EMPI matching algorithms, and current experience with modern web frameworks, I want to continue pursuing similar challenges.

## Education

**Masters of Science – UCLA – Aerospace Engineering** **Graduated June 2015**

GPA: 3.68, Focus: Systems and Control

**Bachelors of Science - UCLA – Mechanical Engineering** **Graduated June 2014**

GPA: 3.89 – Summa Cum Laude, Focus: Computer Science

## Work Experience

**Web Developer: Huntington Ingalls Industries (HII-TSD)** **December 2019 – present**

Worked with .NET and Angular 7 to build/maintain applications used by Unmanned Underwater Vehicle Systems for data collection and analysis. Used Cesium.js for displaying historic and real time geographic data in the browser.

**Interim (World Travel and Personal Projects)** **March 2018 – December 2019**

Between Jobs I traveled the world (Switzerland, Italy, Germany, Austria, France, England, Scotland and South Africa), built my website using VueJS + Netlify, and honed my Computer Science skills

**Solutions Architect: NextGate Soltions** **March 2016 – March 2018**

Worked with Java, Java EE, and Angular 1 to create and maintain Java and web applications for customers and for NextGate: EMPI implementation, data integration and workflow tools for Ascension Health and Northern Territories Australia, and facial recognition for identification and matching algorithms.

**Teaching Assistant: UCLA** **Fall 2014 – Winter 2016**

Administrated labs and discussions for both the Mechanical Engineering and Life Science departments. Awarded “Certificate of Distinction in Teaching” by the UCLA Life Sciences Division.

**SolidWorks 2014 Beta Support: Dassault Systemès** **Summer 2013**

Direct line of support with customers for the SolidWorks 2014 Beta at the Woodland Hills office in L.A.

**Rockwall Supervisor: UCLA Recreation** **Spring 2013 – Spring 2014**

## Notable Projects

- Facial recognition for EMPI matching algorithms – *Python, Docker, Java, ZeroMQ, OpenFace, Torch and Lua*
- Web Applications used by Unmanned Underwater Vehicle Systems - *.NET, C#, Angular 7, NgRx, Cesium, DDS*
- EMPI implementation with data integration for millions of records. 100k+ daily message volume and real time address validation – *Java, Angular 1, Apache Karaf, Apache Camel, SOAP, HL7v2, HL7v3, Unix*
- Autonomous collection and deployment robot – *LabView, SolidWorks*
- 3D sandbox game – *JavaScript, WebGL*
- Finite element solver for membranes under plane stress condition & Finite volume solver for 2D flow – *MATLAB*
- Short Tandem Repeat Analysis of DNA Sequences – *R*

## Programming Languages and Technologies

- Python, Java, C++, C#, MATLAB, R, JavaScript, TypeScript, LabView, Lisp, SQL, Ruby, Unix, bash, sed
- Docker, WebGL, AngularJS (1 and 2+), Vue, Redux (NgRx + Vuex), Node, Cesium.js, .NET, OSGi, DDS, Ruby on Rails, Apache Camel, Apache Karaf

## References

- Ryan Davis, *Software Lead at HII-TSD* – [ryan.davis@hii-tds.com](mailto:ryan.davis@hii-tds.com)
- Dan Cidon, *CTO at NextGate* – [dan.cidon@nextgate.com](mailto:dan.cidon@nextgate.com)
- Will Conley, *Math Professor at UCLA* – [wconley@ucla.edu](mailto:wconley@ucla.edu)