

# MICHAEL VALERIANI

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## SKILLS

C, Java, Ruby, Ruby on Rails, JavaScript, jQuery, React.js, Redux, SQL, Git, HTML5, CSS3, Keras, Tensorflow, Python

## WORK SAMPLES

### Dialog

[Live Site](#) | [Github](#)

*A clone of the popular messaging apps Discord and Slack, built with React/Redux and Ruby on Rails*

- Integrated websocket connections with Rails Action Cable for real-time message sending and receiving
- Created responsive UI components with unique animations using Javascript and Lottie, resulting in fast modal transitions and low loading times.
- Implemented Server and Room creation for limitless chatroom customization using AJAX calls and a scalable Rails backend.

### Conway's Game of Voxels

[Live Site](#) | [Github](#)

*Conway's famous Game of Life automata rendered in 3D isometric space using Javascript and P5.js*

- Rendered 3D graphics using WebGL to create a dynamically updated isometric grid in accordance with Conway's Game of Life
- Calculated grid state changes based on previous states of the grid using asynchronous Javascript functions.

### Shallow

[Live Site](#) | [Github](#)

*Machine learning web app designed to detect Deepfake videos (Tensorflow, Keras, and VGG16)*

- Altered and trained a neural net over the course of ten days with 20,000 images (real and fake). Tweaking of our dataset and training methods resulted in our model reaching an accuracy of over 99.8%
- Designed the UI and video processing software on the front-end. The web app splits the video into frames, selects the those containing human faces, and runs the frames through our image-classification AI. We then average the model's results over the entire set of frames. This process eliminates classification anomalies, resulting in even higher accuracy.

## EXPERIENCE

### Data Analyst

*Deans & Homer*

May 2016 - June 2017

- Developed innovative company growth model through calculus-based analysis of all sales and regional branch data.
- Organized the company's raw insurance policy data and determined what business targets needed to be reached in accordance with the growth expectations of management.
- Developed a hiring timeframe for each branch of the company and calculated how large a workload each new hire would need to manage over a period of 3-4 years. This projection model saved management significant time and effort in both the hiring and employee training processes

### Assistant

*Deans & Homer*

June 2009 - Aug 2012

- Utilized document imaging system to expedite company data storage
- Conducted office-wide parcel delivery and physical document distribution.

## EDUCATION

**App Academy** (Spring 2018)

*Immersive software development course with focus on full stack web development.*

**Cuesta College** (Spring 2015)

*Courses in Computer Science, Deductive Logic, and multiple forms of Calculus.*