# MICHAEL ZHU

Software Engineer / Web Developer





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# **EDUCATION**

# University of California, Berkeley

2011 - 2015

- B.A. Economics
- Relevant courses:
  - Structure and Interpretation of Computer Programs
  - Linear Algebra & **Differential Equations**

## App Academy

Jul 2017 - Oct 2017

- 1000-hour full-stack web development boot-camp with <3% acceptance rate
- Teaches full-stack web development: Rails, SQL, React.js, TDD, algorithms and programming best practices

# **SKILLS**

- JavaScript
- React.is
- Node.js
- Ruby
- Ruby on Rails
- Redux/FLUX
- HTML5/CSS3/SASS
- Express.js
- MongoDB
- PostgreSQL/MySQL
- jQuery
- **RSpec**
- Git
- Websocket
- Test Driven Development
- RESTful Architecture

# **PROJECTS**

## Zoomm

Sole Developer

Live | GitHub

(JavaScript / React.js / Redux / Ruby / Rails / PostgreSQL / SASS / jQuery)

#### Built a photo-sharing web application for professional photographers

- Implemented responsive design, Redux architecture, RESTful JSON API rendering jBuilder views, and hand-rolled user authentication using MVC web framework
- Employed Active Record with PostgreSQL to maintain and store relational data between users, their followers, uploaded photos, etc.
- Integrated Cloudinary API that allows users to upload and store their photos to the cloud hosting service with ease

## **Tactical Warfare**

Full Stack Developer Live | GitHub

(JavaScript / Babylon.js / Node.js / Express.js / Socket.io / MongoDB)

Architected and built a 3D multi-players competitive online tank game

- Designed 3D game scenes, gameplay physics and animations with Babylon.js for better visualization and realistic user interface
- Built entire back-end framework for user authentication with Express.js, Node.js and MongoDB
- Utilized Socket.io to establish a two-way (bi-directional) ongoing conversation between two players for chat and game state synchronization
- Led key features proposal, planning to implementations and facilitated discussion over important potential issues

## Doodle Fall

Sole Developer

Live | GitHub

(Vanilla JavaScript / JavaScript / HTML5 / CSS3)

## Created a vertical-scrolling JavaScript game similar Doodle Jump

- Used DOM manipulation to populate and control animations, and manage collision detection and resolution
- Wrote modular and reusable code by leveraging Object-Oriented Design
- Utilized asynchronous event handlers to manage game logic and functionality

## **EXPERIENCE**

## **Fabric Genomics**

Financial System Analyst

Oakland, CA / Jan 2017 - Jul 2017

- Built intuitive and efficient user interface for company's CRM software tool that manages over 20,000 contacts and accounts
- Analyzed financial activities using Excel modeling (Vlookup, PivotTable, VBA, etc.) including the monthly close process, balance sheet account valuations and reconciliations, expense budgeting and forecasting, long-range planning, and expense allocations to departments
- Extracted data from QuickBooks and Zoho to create key performance indicators reports for each business units monitoring sales, volume, services and marketing effectiveness

## **Ethos Lending**

Financial Data Analyst

San Francisco, CA /Jun 2015 - Oct 2016

- Rebuilt and improved programs used for monitoring daily margin and equity balances, cash positions, and run-rate calculations, saving the company 5 hours of processing time per week
- Performed monthly profit variance analysis using custom Excel formulas and salvaged thousands of dollars for the company from the loan servicers