

Michael Kohlberg

MichaelKohlberg.com

Full Stack Software Engineer

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Electrical and Computer Engineer in Training

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Professional Summary

I am a software developer with a background in mechanical and electrical engineering, a no bs attitude, and a passion for getting stuff done.

Education

University of Missouri Columbia BS Mechanical Engineering, Computer Science Minor 3.57 GPA 2017

General Assembly Software Engineering Immersive

13-week Coding Bootcamp 2022

Projects

PokéClone Tech: HTML, CSS, Javascript, PokéAPI, Canvas

- Pokémon based RPG where a user battles randomly encountered or searchable real Pokémon fetched from API

OolHaveThat Tech: Postgres, Express, Node, Bootstrap, EJS, MapBox API, Data seeding, Sequelize

- Peer-to-peer tool sharing platform allowing DIYers to request tools from other nearby users

Reart Tech: React, MongoDB, Express, Node, Mongoose, RestfulAPI, Stripe, Postman

- Subscription art rental platform where users select keyword preference tags which allows our automated warehouse to personalize suggestions for quarterly art rentals/purchases

AlgoViews Tech: React, MongoDB, Express, Node, RestfulAPI, Async Javascript

- Algorithm visualization tool aimed at students which sorts an array on-screen according to various algorithms

KCMOMovers.com Tech: HTML, CSS, Javascript, PHP, jQuery, Flexbox, Grid

- Personal company website for marketing purposes as well as coding practice

Other Computer Proficiencies

AngularJS, Swift, Kotlin, Python, UX, PLCs (TwinCAT), Java, Git (Github, Azure), C, Matlab, Simulink, NoSQL, SQL, MySQL, Django, TypeScript, Microsoft Office, Windows, MacOS, Remote Desktop, Agile, Scrum, Authorization, Authentication, WordPress, jQuery, JSX, JSON, XML, CAN Bus, RV-C, PCAN, Ionic, Capacitor, Ignition, AutoCAD, SolidWorks, Allen Bradley, GIS, Synergy, LabView.

Work Experience

Firefly Integrations Mobile Application Developer 2022 - Present

- Developer for Vegatouch (VT) Mira and VT Eclipse mobile applications which allow users to control and monitor the appliances in their recreational vehicle such as lights, thermostat, water tanks, generator, inverter, solar, etc.
- Maintained the VT apps themselves as well as commissioned JSON files that would be stored on AWS and fetched by the apps in order to customize a particular RV coach according to strict manufacturer requirements.
- Integrated mobile app with the Multiplex control system which was affixed in each RV.
- Controlled third party appliances using RV-C protocol on CAN bus.
- Cross-platform development using Ionic Capacitor with AngularJS and iOS development using Swift with React.

New Frontier Technologies Traveling Controls Engineer 2020 - 2021

- Installed electrical control panels, wireless temperature sensors, modem and router to allow power savings on freezers, lights and other appliances at gas stations and fast food restaurants.

<u>Kays Engineering</u>	Controls Software Engineer	2018 - 2020
<ul style="list-style-type: none"> ▪ Developed object oriented PLC program for automated drilling and boring machines using TwinCAT software. ▪ Incorporated both CNC G-code functionality along with simpler, conversational programming for the HMI. ▪ Worked directly with all levels from OEMs to day-to-day operators to produce user-friendly HMI. ▪ Read and edited electrical prints to understand how a machine would work. ▪ Integrated and parameterized VFD and servo drives as well as other peripheral hardware. ▪ Utilized a variety of networking and source control tools to troubleshoot with customers. 		
<u>Kays Engineering</u>	Controls Engineering Intern	Summer 2017
<ul style="list-style-type: none"> ▪ Developed communications for new Smart Panel PC to control the original PLC in older machines. 		
<u>Alliant Energy</u>	Natural Gas Engineering Intern	Summer 2016
<ul style="list-style-type: none"> ▪ Modeled pressure and flow in natural gas networks using Excel and GIS software. 		
<u>Associated Electric Coop Inc.</u>	Reliability Engineering Intern	Summer 2015
<ul style="list-style-type: none"> ▪ Assisted in revamping coal power plant preventative maintenance operations. 		
<u>KCMO Movers</u>	Owner / Operator	2014 - 2022
<ul style="list-style-type: none"> ▪ Managed a small moving business including all marketing, billing, customer relations and employee management. 		

Other Skills and Interests

Long term planning, Asset management, Electrical installation, RV maintenance, Solar/Battery/Generator configurations, Homeowner DIY, Mobility, Climbing, Volleyball, Hockey, Communication, Integrity.

Honors and Achievements

- Passed Fundamentals of Engineering Exam for Electrical & Computer Engineering (without EE degree)
- Developed thermoelectric generator allowing a campfire to charge a cellphone battery (Senior Capstone)
- Electrical Lead for Mizzou Electric Car Team (started designs for formula electric race car)
- Web Manager for Mizzou Electric Car Team (completed electric drivetrain conversion of Chevy truck)
- Web Manager for Mizzou Robotics Club (fabricated battle bot and competed against other universities)
- Developed CounterMeme (website similar to reddit where memes are created and battled head-to-head)
- HackMizzou 2016 contestant (Led a team to develop our idea of a grocery finder app for Walmart)
- High honor roll for 9 straight semesters of college