Michael Sun

Experienced software developer with a focus on building
a simple, engaging, and accessible digital experiences.

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Relevant Experience

Sr. Software Developer · **Lumen Technologies** June 2023—Apr 2024
Software Developer Nov 2021—June 2023 (Apex Systems)

HTML, SCSS, JavaScript, TypeScript, Vue.js, AWS, Papertrail, Azure SQL Database, jQuery,
Express, Axios, Gulp, AngularJS, Loopback, MySQL, GitHub, Jenkins, Jira, Confluence, Nexus,

- Developed a fraud detection API for ctl.io, blocking 139 harmful entities and preventing $3M in potential fraud in 2023. Integrated Google address verification and MaxMind API to enhance business registration accuracy.
- Improved user interface with a focus on mobile-first and responsive design working with the UX/UI team for ctl.io and onramp-ui.ctl.io web applications. enhancing the in-house CMS to perform CRUD and gather data in one place.
- Enhanced Vue.js and Chai test code for the Lumen Bare Metal service login page, reducing login time to under 30 seconds and standardizing the UI experience for accessing third-party services.
- Refined AWS serverless microservice for data retrieval and transfer using TypeScript, Mocha for testing, and AWS SDK for secret management.

Software Engineer Internship · **LMI Aerospace** Oct 2021—Nov 2021

.NET, C#, Micrsoft Sharepoint

- Developed and launched 14 SharePoint pages for various teams within the company.
- Collaborated with senior developers to clean up code and enhance logging for real-time data tracking in a .NET and C# web applications.

Research Assistant · **South Dakota State University** Dec 2019— Feb 2020

ComputerVision, Keras, Python, Linux, Google Colab

- Specialized in deep learning for computer vision with Keras, Python, Linux, and Google Colab, enhancing the U-Net semantic segmentation model to improve detection accuracy of structural damages on bridges. Contributed to advanced research and authored a master's thesis (details in Publication section).

Teaching Assistant · **South Dakota State University** Jan 2018—Jan 2019

C, C++

- Mentored first-year computer science students for 12 hours weekly, providing guidance in C/C++ programming and data structures during office hours.
- Assisted in evaluating and grading assignments for a C++ programming course.

Recent Projects

ZillowV1 - Node Web Application

JavaScript, Node.js, Express, MongoDB(Atlas), RESTful API, Google Firebase, MapBox
- https://primitivezillow.onrender.com
- Developed a full-stack web application mimicking Zillow.com's rental page. Implemented a RESTful API and user authentication for secure interactions. Authenticated users can view, edit, and delete rental posts. Deployed on Render for accessibility.

ZillowV2 - React Web Application

React, React DOM, Hooks, Node.js, JSX, Context API
- https://zillowv2.netlify.app
- Upgraded version of ZillowV1, developed as an e-commerce web application with features similar to U-Haul.com, including product and service purchases.

Skills

Programming Languages
JavaScript, TypeScript, HTML, CSS, Sass, C, C++, jQuery

Libraries & Frameworks
React, Hooks, Styled Components, Node.js, Express, Bootstraps

Tools & Platforms
Git, GitHub, Heroku, Netlify, Render, Firebase, AWS, Webpack, MySQL, MongoDB

Publication

The 15th Asia Pacific International Conference on Information Science and Technology (APICIST). "Sun, M., Won, K. (2020). Concrete Crack Detection Using A Modified U-Net Architecture. APIC-IST 2020."

Education

Master of Science, Computer Science, **South Dakota State University**
Aug 2017—May 2020
GPA: 3.6/4.0
publication of a deep learning thesis in the APICIST journal.

Bachelor of science, Architectural Studies & Interior Design, **University of Missouri**
Aug 2010—May 2014
GPA: 3.5/4.0