

Shawn M. Sullivan

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SUMMARY

After a few years as a chemical engineer, I fell in love with problem solving, but ultimately I didn't feel I was able to utilize my creativity to solve a lot of the challenges I'd face. So I became a software developer. Where I'm constantly challenged to use my logic and creativity to build pragmatic applications. If you have a project I can help with, please reach out. I'm seeking a software engineering opportunity and always curious to hear about others' ideas and businesses.

TECHNICAL SKILLS

JavaScript • React.js • React Native • CSS • HTML • Redux • SASS • Bootstrap • Node.js • Express • PostgreSQL • MongoDB • Jest • Enzyme • Mocha • Chia • K6 • Amazon Web Services (AWS) • CircleCI • Agile Methodologies • Git • Product Development • Pair Programming • Data Analysis • GraphQL

SOFTWARE ENGINEERING APPLICATIONS

trackIt - Full-Stack | React Native, React Native Navigation, Node, Express, MongoDB | [\[GitHub\]](#)

A daily habit tracker & analyzer

- Created clean, intuitive UI using FlexBox and React Native Navigation
- Utilized MongoDB & Mongoose to allow user to persist users' habit data
- Render habit data using React Native SVG Charts for better readability and analysis

Blue Lagoons - Back-End | Node, Express, PostgreSQL, K6, AWS | [\[GitHub\]](#)

Replace the legacy backend system for the Tiger Eye Retail web-portal

- Optimized legacy code to build a performant backend that was able to handle 20+ million data points
- Configured and deployed to multiple AWS EC2 instances to allocate resources for better performance
- Reduced average response times to 120 ms under stress of 700+ RPS using indexing techniques and testing with k6/New Relic

Tiger Eye - Front-End | React, Webpack, Babel, Bootstrap, CircleCI, SASS, Redux | [\[GitHub\]](#) [\[Trello\]](#)

Retail web-portal for customers to browse, review and purchase products similar to Amazon

- Utilized Agile development, Trello, and CircleCI to streamline team workflow.
- Designed and implemented Product Overview components with conditional rendering using React and Redux.
- Created a visually appealing and intuitive UI.

CHEMICAL ENGINEERING EXPERIENCE

Lab Engineer | Molecular Products | Louisville, CO

May 2017 – December 2019

- Authored software implementation and equipment validations.
- Managed the calibration, reporting, and risk analysis of over 200 tools as the company's Calibration Administrator to comply with ISO 9001 and 13485 regulations.
- Utilizing control measures such as I-MR control charts, first pass yields (FPY), turnaround times and overall equipment effectiveness (OEE) ensured all lab equipment was operating optimally
- Arranged and directed a measurement system analysis (MSA) for the lab's Gas Test Systems to determine the systems' repeatability and reproducibility, and distinguish areas for improvement.
- Wrote and trained technicians to new standard operating procedures (SOPs).
- Installed and implemented a fourier-transform infrared spectrometer (FTIR) to perform quality tests with greater accuracy and reproducibility.

Chemical Engineering Intern | 360 Yield Center | Iowa City, IA

March 2015 – February 2017

- Formulated algorithms ensuring pH and nitrate sensors operate correctly. Set criteria for technical/equipment errors.
- Developed and tested ion selective electrodes (ISE) for infield soil testing machines, allowing farmers to test soil nutrient levels in 5 minutes. Resulted in increasing equipment sales from 0 to over 1,000 in 1.5 years.
- Served as Project Lead for the research and development of a potassium ISE to measure water soluble potassium in soil samples and provides an estimate of the exchangeable potassium present.

EDUCATION

• **Hack Reactor Software Engineering Immersive Program** | Galvanize

May 2020

• **Bachelor of Science in Chemical Engineering** | University of Iowa | Minor in Chemistry

December 2016