

CODY LEWIS

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srlm.io

I am a software engineer with a focus on data processing systems and product manufacturing.

Expertise

- Software engineering
- Cross-disciplinary project management
- Automating workflows through applications
- Data pipeline design and implementation
- Deploying and administering servers
- Integrated tooling for code quality
- Software architecture
- Hiring and interviewing
- Hardware manufacturing
- Embedded systems

Tools

- **Languages:** Python, Javascript, HTML, CSS, Bash, C/C++, Java, Spin, PASM, PBASIC, Regex
- **Client Side:** Javascript, HTML, CSS, JQuery, Angular, D3, Bootstrap
- **Server Side:** Node, Hapi.js, Flask, Django, REST
- **Infrastructure:** AWS (EC2, S3, ELB, IAM, ECR, awscli)
- **Databases:** PostgreSQL, Cassandra
- **Hardware:** Parallax Propeller, RaspberryPi, Arduino
- **Operating Systems:** Ubuntu, Archlinux, Yocto, Linux, Android
- **Keyboards:** Programmer Dvorak, QWERTY
- **Other:** Docker, Vagrant, Ansible, Git, Github, JIRA, Jenkins, KiCad, DevOps, CI/CD

PROFESSIONAL EXPERIENCE

Formlabs

Software Engineer

Full time: September 2015 - August 2019

Remote contractor: August 2019 - Present

Boston, MA

- Managed the entire factory software stack for 3D printer manufacturing.
- Wrote and maintained a data management system to ingest data from the factory and provide an analysis platform for engineers. Used Node.js, AWS, Ansible, and PostgreSQL.
- Developed a calibration framework with Python from the group up that scales across products and engineer contributors to allow robust new product introduction (NPI).
- Created a software deployment system using Docker and Yocto that is specifically tailored to the challenges of releasing software to local devices around the world within the constraints of a manufacturing ecosystem.
- Reviewed and integrated contributions from engineers across disciplines and teams using Git.
- Grew the team by posting jobs, conducting interviews, and training new hires.
- Regularly released software for testing and calibration of products to allow for reliable production of Formlabs products.
- Coordinated testing and calibration supply chains with global manufacturing partners, and traveled to initiate new production lines.



3D printing products that I worked on at Formlabs: the Form2 printer, Form Wash and Cure, resins, and Form3

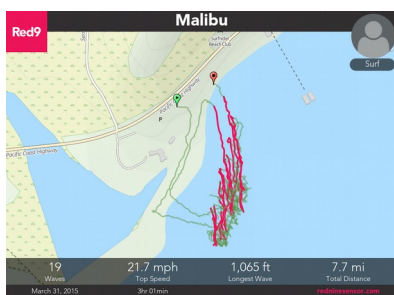
Red9

August 2012 - August 2015

Chief Architect

Remote

- Developed a full stack solution from embedded hardware through cloud services and modern web clients in order to create an activity tracker for surfers. Startup postmortem [blog post](#) with details.
- Built a data science platform for processing, storing, and serving balanced accelerometer, gyroscope, magnetic, barometric, and GPS data, and worked with data scientists to integrate machine learning.
- Used Angular to build a single page client application to seamlessly interface with an API for the display and exploration of user data.
- Designed and built four generations of a prototype sensor detection system on custom PCBs.
- Developed a full custom C++ library for embedded programming, with hardware based unit testing for high reliability. I released the project under the MIT license as [libpropeller](#).
- Built a real-time Android Java application to display graphical inertial data.
- Coded a HAPI.js based API server hosted in the cloud using AWS EC2, Node.js, and PostgreSQL.
- Built a marketing website designed for smooth user experience, download speed, and automated release.



Technology that I worked on at Red9: data science platform (left), embedded hardware and firmware (center and right)

Big Bear Mountain Resort

2019 - 2020 Season

AASI Level 1 Snowboard Instructor

Big Bear Lake, CA

- Snowboarding is sublime. What else is there to say?

UC Riverside Housing Services Resident Advisor - Engineering Hall

August 2009 - June 2012

UC Riverside Environmental Sciences Student Programmer

June 2011 - September 2011

UC Riverside Learning Center Supplemental Instructor

March 2009 - June 2009

EDUCATION

University of California, Riverside

June 2012

BS, Computer Science

VOLUNTEER EXPERIENCE

RoboSail Mentor

September 2014 - September 2016

FIRST Robotics Team 1965 Mentor

September 2013 - March 2016

FIRST Robotics Team 2839 Mentor

September 2012 - April 2013

UC Riverside Student IEEE Vice Chair

September 2010 - June 2011