

Sev Leonard

Tenacious problem solver seeking developer positions with opportunities for technical growth and leadership development. Key interests include Python, full stack development, data wrangling, teaching, UX, collaborative teams, and products that make the world a better place.

Skills & Technologies

- Primary languages: 6 years Python and JavaScript. 3 years C#/WPF.
- Full stack web development with JavaScript, React, Redux, Redux Saga, jQuery, HTML, CSS, Bootstrap, Spring, Hibernate, CMS.
- Database design and data wrangling including ORM, ETL, REST API development, web scraping, SQL, Python, Postgres, mysql, SQLite, and Jupyter notebooks.
- Server side development with Flask, Python, Docker. Some experience with DigitalOcean, AWS, Azure, and Heroku.
- Agile/SCRUM, UX testing, OOD, pair programming, git, Perforce, Selenium, NUnit, pytest, TeamCity.
- Technical training & writing on OOD, Python, micropython, React, and data wrangling.
- Experience working with human subject data, HIPPA, PHI, and IRB protocols.

Oregon Health & Science University, Computational Biology - Portland, OR

Research Software Engineer, February 2017 - Present

- Developed schema, business logic, and Spring/Hibernate REST API for real-time specimen dashboard. Minimized response time via hierarchical API.
- Delivered 5-10x speedup of Hibernate backend. Resolved long response times and database connection errors through connection pooling and ORM optimization.
- Quickly integrated EHR data through automated ETL processes in SQL. Data sources included Epic, Oncolog, GeneTrails, and Powerpath.
- Reduced front end development time with a custom library of configurable React/Redux HOCs. Designed sagas, reducers, and data translation logic for dynamic UI generation.
- Developed test suites for automated UI testing, functional testing, and ETL testing. Led adoption of best practices: pair programming, usability studies, testing, and source control.
- Created documentation for users and developers on DMS usage and development.



- Prepared proposals, advised cancer center directors on tech decisions, scoped feature requests into epics and user stories, advised managers on priorities and personnel issues.
- Mentored junior developer on software development best practices and career growth.

Independent Consultant, June 2015 - February 2017

- Technical writing, tutorial development, and tutorial testing for DevelopIntelligence. Interactive tutorials on Python and React hosted on codepen.io and Heroku.
- Developed object oriented data pipelines tutorial for PyCon 2016. Docker LAMP container served websites and mocked APIs, accessed from Jupyter notebooks. Libraries covered included requests, BeautifulSoup, Selenium, and Pandas.
- Developed www.campnear.me, a Pacific NW camping platform. Created a public lands database and REST API using public APIs and scraped USFS websites. Automated reservation queries for recreation.gov and ReserveAmerica.com. Mobile-first GoogleMaps based responsive front end, Google Analytics and Google Tag manager used to track popular search terms
- Improved click through rate by 40% with logistic regression model for targeted advertising. Features derived from text, demographic data, and ad data using cluster analysis, NLP, and sparse matrix techniques.

Intel Corporation

Software Engineer, May 2012 – May 2015

- Intel Show Screen Manager: C# Implemented 3rd party EInk display access via protocol handlers, Azure cloud services, Twitter integration, SQLite storage solution, and UI design. Built [ASP.NET](#) service for aggregating RSS feeds.
- Concept EInk Project: (demoed at IDF Fall 2013, CES 2014): C# Driver wrapper, UI, and concept applications (EReader, EInk screen manager). Integrated Linux driver into AndroidIA, developed Android native stack. Worked with external vendors on UI design.
- Intel Experience Center (IEC): C#, JavaScript, HTML. Notifications infrastructure, Flurry analytics integration, dynamic content loading framework, UI design, and working with external UI design firms.
- Mentored junior engineers on career growth, facilitated introductions both inside Intel and in the Portland technical community.

Education

- B.S. Electrical and Computer Engineering, The Ohio State University, March 2003
- M.S. Electrical Engineering - Analog Circuit Design, The Ohio State University, June 2004



Selected Talks & Tutorials

- PyCascades 2018 IoT Communication in Micropython. [video](#)
- PyCon 2017 ESP8266 IoT workshop. [video](#) [github](#)
- PyDX October 2016 Internet of Cats: micropython for mews. [video](#) [github](#)
- AlterConf October 2016. Spoke about my experience as a FTM in tech. [video](#)
- PyCon May 2016. Tutorial on building scalable web data pipelines in Python. [video](#) [github](#)

Selected Publications

- January 2017, [State Management with React/Redux](#)
- December 2016 [National Parks Weather with React](#)
- October 2016 [An Introduction to Object Oriented Data Science in Python](#)
- September 2016 [Advanced Google Maps with JavaScript](#)
- August 2016 [Interactive Mapping with Python, GeoJSON, and JavaScript](#)