Joshua Loehr

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EDUCATION

Western Washington University, Bellingham, WA
B.S. Computer Science – June 2018
B.S. Mathematics – June 2018
GPA: 3.89

HIGHLIGHTED PROJECTS

LiftJL – Exercise Tracking PWA (github.com/joshualoehr/exercise-app)
(WIP) A small exercise tracking app, leveraging React/Redux and MaterialUI. Designed as mobile first, offline capable via IndexDB. Backend Flask API for syncing across devices.
Live demo: http://liftjl.azurewebsites.net

AuthJL – Identity Provider (github.com/joshualoehr/auth-server)
(WIP) My attempt to build my own IDP following OAuth/OIDC protocols. Frontend login widget built with Vue.js available at https://github.com/joshualoehr/auth-client

Starter-kit (github.com/joshualoehr/starter-kit)
Minimalist Javascript development environment starter kit. Inspired by create-react-app, but leaner, built from scratch, and tailored to my own preferences. Used to start my LiftJL project.

React Map Demo (github.com/joshualoehr/react-map-demo)
Simple React app demoing how to mount an interactive map with free-drawing capability.
Live Demo: https://react-freedraw-map.azurewebsites.net/

EXPERIENCE

Software Engineer II   June 2018 – Present
Emergency Reporting – Bellingham, WA
- Update/maintain legacy monolith (Classic ASP, PHP, Javascript, JQuery, React, T-SQL)
- Assisted in the architectural design and implementation of a complete replacement of the existing homegrown authentication service with an integration with Azure AD B2C.
- Created new modules and applications, using primarily React/Redux, PHP, and T-SQL.
- Led the initiative to introduce the practice of writing snapshot tests for all new React code, which has significantly reduced defects from changes to common components.
- Developed internal tools to e.g. automatically update Azure DevOps tickets when CI/CD completes successfully.

Deep Learning Research Assistant   September 2017 – June 2018
Western Washington University – Bellingham, WA
- Explored unsupervised deep learning methods for insider threat detection using large data streams.
- Created BASH/Python scripts to facilitate data preprocessing, and TensorFlow for model training and evaluation..

Software Development Intern   February 2017 – September 2017
SparkCognition – Austin, TX
- Scripted a web scraper to download hundreds of thousands of sample Android APK files for use in malware classifier training.
- Created a pipeline of BASH/Python scripts to extract features from samples and train new classifiers for detecting malware, using Spark on YARN in a distributed Google Cloud cluster.
- Decreased runtime by ~66%, and allowed for training on the full 65 TB training set.

Web Application Developer   May 2016 – February 2017
ResTek (WWU University Residences) – Bellingham, WA

- Collaborated on an Agile team of developers to update/maintain multi-project Django application comprising the university's housing website
- Spurred the initiative to add unit and functional tests to the existing legacy code base, reducing technical debt and speeding up new development

Software Engineering Intern   July 2015 – December 2015
Spredfast – Austin, TX

- Developed a new internal tool using NodeJS to automatically prioritize JIRA bug tickets using Salesforce customer data.
- Created a NodeJS library to abstract Spredfast's customer-facing RESTful API, which also served as API documentation for 3rd party developers.

OTHER ACTIVITIES

WWU Rock Climbing Team (Fall 2015 – Present) | Team Captain (Fall 2017 – Spring 2018)

Webmaster, WWU Association of Computing and Machinery (Fall 2014 – Fall 2016)