

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

SKILLS

Languages: JavaScript, TypeScript, HTML, CSS, C#, PHP, TSQL, Java, Python, BASH, PowerShell

Technologies: React, Redux, Webpack, Babel, Jest, .NET Core, ASP.NET, .NET Entity Framework Core, Flask, Azure (functions, web apps, storage accounts, B2C identity management)

HIGHLIGHTED PROJECTS

Exercise Tracking App (github.com/joshualoehr/exercise-app)

A small exercise tracking app, leveraging React/Redux and MaterialUI. Designed as mobile first, offline capable via IndexedDB. Backend Python Flask API for syncing across devices available at github.com/joshualoehr/exercise-app-server

N-gram Language Model Sentence Generation (github.com/joshualoehr/ngram-language-model)

Python implementation of an N-gram language model with Laplace smoothing. Generates random sentences in the style of the corpus on which the model is trained.

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.

React Map Demo (github.com/joshualoehr/react-map-demo)

Simple React app demoing how to mount an interactive map with free-drawing capability.

EXPERIENCE

Software Engineer II (Full Stack)

June 2018 – Present

Emergency Reporting – Bellingham, WA – remote from Seattle, WA since 2020

- Overhauled authentication platform-wide, replacing the homegrown OAuth service with cloud-based solution Azure AD B2C. This involved architectural design, planning, creation of new frontend UI/UX, significant backend refactors, and extensive cross-departmental collaboration.
- Created new full stack modules and applications (React/Redux, Stylus, C#, PHP, T-SQL), as well as updated/maintained an extensive publicly accessible REST API (PHP).
- Created/maintained unit and integration tests (Selenium, Jest, xUnit, PHPUnit).
- Maintained ownership of frontend JavaScript dependencies, including changelog reviews and coordinating regular updates across the entire development department.
- Introduced and maintained code formatting tools for the development department.
- Mentored other developers and evangelized best practices in writing clean, testable code.
- Developed BASH and Powershell scripts to automate certain SDLC tasks, e.g. automatically updating Azure DevOps tickets upon CI/CD completion.
- Created .NET ETL pipeline to securely extract data from the SQL Server database, transform based on customer requirements, and securely upload to a protected cloud storage account.
- Operated within a high-availability, compliance-focused ecosystem supporting several domestic and international production environments, including one high security environment for US government and military customers.

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 NumPy/Pandas/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 Apache 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 maintain and expand a multi-project Django application comprising the entirety of 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 and regularly prioritize bug tickets in JIRA using customer details in Salesforce.
- Created a NodeJS library to abstract Spredfast's customer-facing RESTful API, which also now serves as API documentation for 3rd party developers.

**OTHER
ACTIVITIES**

WWU Rock Climbing Team (Fall 2015 – June 2018) | Team Captain (Fall 2017 – June 2018)
Webmaster, WWU Association of Computing and Machinery (Fall 2014 – Fall 2016)