Mohammed Sahl

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Summary

· Experience with Salesforce, Android development, full-stack frameworks, scripting and compilers
· JavaScript, TypeScript, Python, C/C++, Java, Rust; React/Redux, Sails/ExpressJS, Redis, Cypress

Experience

Salesforce Engineer   *(Remote) Waterloo, ON*
Manulife   January 2021 - April 2021

· Revamped dataflow pipeline with Apache Nifi increasing reliability in data transfer from SFTP to Salesforce

· Programmed Apex Batch classes and Triggers to process **20,000+** records across several campaigns

· Dropped application load times by **57%** by converting to a stateful architecture for event propagation

Software Engineering Fellow   *(Remote) Waterloo, ON*
Major League Hacking   May 2020 - August 2020

· Built a RESTful back-end server and testing framework for **v2** of a JavaScript transpiler

· Developed a word processing document parser and contributed to a spreadsheet data toolkit

· Added E2E tests using Cypress helping validate UI and server requests for a documentation generator plugin

Quality Engineer   *Toronto, ON*
WorkMarket   May 2019 - August 2019

· Expedited build and release pipeline by **25x** by automating repetitive test cases using Espresso

· Developed software test plans for the Android platform increasing case coverage by **30%**

· Reduced employee on-boarding times by **4x** by consolidating documentation into a single repository

Web Designer   *Dubai, UAE*
Brand Lounge   June 2017 - August 2017

· Decreased website load times by 20% by introducing caching into the server of a website with **500+** pages

Projects

Biquadris | *C++, Bash*
· Programmed a two player Tetris clone with revamped block generation, level difficulty and player abilities

· Devised special actions, triggered by clearing multiple rows, allowing user to negatively influence opponent

· Formulated level specific block generation using various software engineering design patterns

Babel-Repl | *JavaScript, React, SailsJS, Supertest*
· Engineered a sandbox that transpiles code from ES6 to ES5 syntax with custom plugin and config support

· Introduced functionality to save and fork blobs, view AST with syntax highlighting and transpile history

· Implemented back-end and testing infra using SailsJS's MVC framework

C-Compiler | *C++, Assembly, Bash*
· Created a compiler that scans, parses and generates executable files from C source code

· Implemented loops, variable assignment, function definitions, conditional, arithmetic and return statements

· Uses LR(1) NFA parsing to analyse a context-free language and produce derivation for a given string

WordJS | *TypeScript, PowerShell*
· Architected a word processing document library with **1.2k+** stars, **200+** forks and **402k+** weekly downloads

· Implemented logarithmic time file type detection by using trie data structure to process file signatures

· Developed a file-type agnostic XML handler to parse through text blocks for unzipped files

UtilBot | *Rust, PostgreSQL, diesel*
· Built a full-stack Discord bot that profiles users and serves bash-like instructions

· Added commands for server members to ask questions and get replies from users matching its characteristics

Auto-Repo-Struct | *React, TypeScript, TSX*
· Authored a plugin to allow users to visualize, in tree form, repository structures on Github

Education

University of Waterloo   *Waterloo, ON*
Bachelor in Computer Science (Co-op)   September 2018 - April 2023