Sam Orend

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Education

University of Waterloo
Honours Co-Op Software Engineering   *September 2019 - April 2024*
- Most Recent Academic Average of 97%, Cumulative Average of 92%.
- Relevant Coursework: **Statistics for Software Engineering (98%)**, **Linear Algebra (96%)**

Experience

Lomic Law (lomic-law.ca)   *Remote*
Software Developer   *November 2017 - Present*
- Building a cross-platform mobile app for facilitating real-time communication between lawyers using Flutter and Firebase.
- Independently implemented profile management, communication services using Agora SDK, user search and app notifications.

Vidyard   *Remote*
Software Engineering Intern   *January 2021 - April 2021*
- Designed survey to A/B test against beta features. Created Rails backend and **utility to export > 60,000 responses to Redshift.**
- Created a feature for users to blur their backgrounds that is used in 15% of video recordings on Vidyard's platform.
- Quantified feature usage by developing analytics events to **track key variables on 6000+ recordings per day.**
- Converted 500,000 views/day from Vidyard's legacy to modern web video player by automatically loading the modern player on devices running iOS 12+ after fixing known accessibility and fullscreen issues.

Ford Motor Company   *Waterloo, Canada*
Software Engineering Intern   *May 2020 - August 2020*
- Discovered 5% response delay caused by third party software through **statistical analysis of 10,000+ performance logs.**
- Identified bottlenecks in start-up sequence, and implemented multi-threaded C++ solution to decrease system boot time 20%.
- Enabled drivers to use their in-car voice assistant 40% sooner by lazy loading language recognition data.
- Developed a JavaScript tool to abstract the manual configuration of a testing simulator, **saving the team 5 hours per week.**

Quality Activity Books   *Kitchener, Canada*
Software Engineer   *July 2018 - August 2018*
- Increased the speed of book publication 12.5% by creating a C++ Sudoku puzzle generator for a publishing company.
- Integrated software solution with the book production process to **save $14,400 in labour costs per year.**

Projects

COVID My Tweets - Data Visualization Tool   *Python, pandas, JavaScript*
Top 20 Project at RU Hacks out of 95 teams   *2021*
- Implemented python module to fetch geo-located tweets about coronavirus using the Twitter API.
- Developed algorithm to analyze and consolidate sentiment data of hundreds of tweets per request using Pandas and NLTK.
- Created an interactive heat map of North American twitter data, **visualizing data from 5,000+ tweets in real-time.**

Compiler for the Scala Programming Language   *Scala*
Recieved 100% in Enriched Sequential Programs   *2020*
- Created a compiler for a subset of the Scala programming language, meeting all weekly deadlines throughout 11 week project.
- Developed support for: nested procedures, function values, and heap memory with automatic garbage collection.
- Optimized compiler to detect and eliminate recursive and non-recursive tail calls.

Technical Skills

Languages: Python, SQL, C/C++, Scala, JavaScript, Ruby, Dart, HTML, CSS
Technologies: Git, pandas, NLTK, Jupyter Notebook, Kaggle, SQLite, Rails, Bash, Unix, React.js, Firebase, Flutter

Awards/Achievements

2021	**Top 25%**, Ranking out of 150,000 competitive programmers on LeetCode.	*Remote*
2021	**Babbin Family Scholarship**, Awarded to 1 of 10,000 engineering undergraduates at the University of Waterloo for academic achievement and passion for innovation.	*Waterloo, Canada*
2019	**President's Scholarship of Distinction**, University of Waterloo - Academic Achievement.	*Waterloo, Canada*
2018	**National Champion**, Canadian Junior National Table Tennis Championships	*Burnaby, Canada*