Trevor van Leeuwen

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Technical Skills

Proficient In:	C/C++, Java, SQL, Ruby on Rails
Familiar With:	Python, Perl, Verilog, ARM Assembly, Javascript, Bash
Tools:	Git, GDB, WinDbg, OpenMP/OpenCL, Valgrind suite, LaTeX

Work Experience

Aug-Dec 2017 — File System Developer at Microsoft
- Desgined & implemented end-to-end dehydrated cloud file copy protocol in NTFS, saving significant bandwitdth and disk space when a copy is issued on cloud-stored files (i.e. on OneDrive)
- Filed patent for the cloud copying technique
- Implemented various performance improvements and bugfixes for NTFS

Aug-Dec 2016 — Database Developer at Magna International
- Overhauled Defect Detection & Classification system backend to improve mean query time by a factor of 5
- Optimised database server job scheduling to eliminate performance bottlenecks

Jan-Apr 2016 — Full Stack Developer at Shopify
- Created mobile phone payment method for customers in developing countries
- Improved resiliency of accounting software integrations (Xero & Intuit), reducing unhandled exceptions by 35%

May-Aug 2015 — Rapid Prototype Developer at TD Canada Trust
- Rapidly created web & Android prototypes involving new technologies for banking (e.g. internet of things), bringing them from ideation to minimum viable product in 4 week sprints

Sept-Dec 2014 — Software/Tool Developer at Nanometrics
- Developed software & firmware for seismometers
- Verified & debugged prototype PCBs in the lab

Jan-Apr 2014 — Backend Web Developer at Recognia
- Built backend & API of a website for technical analysis of financial instruments

Projects

- **Chorus - Inexpensive High Quality Recording (Capstone Project)**
  - Using machine learning and digital signal processing techniques, created a system to allow amateur musicians to record better quality vocal/instrumental tracks using readily available microphones (cell phones, laptops)
- **UW Autonomous Sailboat Team**
  - Implemented autonomous path planning software, and created automatic sail trim control system for an RC sailboat in hardware. The boat is to race with zero human input

Education

University of Waterloo, Waterloo, Canada

- Bachelor of Applied Science, Computer Engineering, 2018. With Distinction
  - Key courses: Programming for Performance, Digital Signal and Image Processing, Computer Architecture, Embedded Systems, Computer Security, Operating Systems, Data Structures and Algorithms

Interests and Activities

- Leadership roles in UWaterloo Orientation Week, Engineering Society & Graduation Committee
- Competitive collegiate e-sports: Team co-ordinator for UW Heroes of the Storm, Team captain for Hearthstone
- Competitive sailor, avid cross-country skier, amateur saxophone player
- Fluent in English and French, basic knowledge of Dutch