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# Thomas Dedinsky

## Computer Engineering, University of Waterloo

### Languages

- JavaScript
- Java
- C/C++
- Python
- MATLAB
- SQL
- Assembly

### Coursework

- Embedded Microprocessors
- Operating Systems
- Algorithms and Data Structures

### IDEs/Tools

- git/svn/perforce
- Atlassian Tools
- Unix Terminal
- IntelliJ-like IDEs
- Visual Studio
- Keil uVision
- Eclipse/Quartus

### Education

- Computer Engineering
- University of Waterloo (UW)
- 2016 – Present
- 2A/2B Dean's Honours List
- 3B Exchange in France (UTC)

### Volunteering

- VP Academic & Advertising Commissioner, UW EngSoc
- Group Leader & Rec. Advisor, Future ACES Leadership Conference
- Chief Moderator, TPP Subreddit

### Work Experience

#### Firmware Design Engineer – C++/MATLAB

Jan 2019 - Apr 2019

Infinera Corporation

- Optimized the firmware simulation code by changing variable ownership between languages through the use of MEX functions, using preprocessor metaprogramming for code generation to standardize inconsistent variable conversion methods, and reducing read-modify-write calls
- Created an automated testing suite which ran simulations on remote servers via repo commit

#### Intern Software Engineer – Java/React.js/SQL

Apr 2018 - Aug 2018

Veeva Systems

- Helped develop a life sciences software solution focused on large-scale management by working full stack in several production groups and individual efforts on an agile lifecycle
- Headed the creation of an automated API documentation tool and production of our new machine learning model, as well as the entire backend of our profile layout management feature

#### Mobile Developer – Ember.js/SCSS

Sept 2017 - Dec 2017

Department of National Defence

- Released a mental health-focus app, molding activities and utilities engineered to aid awareness and management of your mental health by implementing research in a practical application
- Improved an offline resource and utility app designed for Canadian troops in Latvia by creating a content manager system to allow code-illiterate personnel to repurpose the application

#### Software Developer – Java/ActionScript/SQL

Jan 2017 - Apr 2017

Bayer Pharmaceutical and Radiology

- Developed the multi-modality feature, uprooting the application to improve the previously built framework within a tight timeframe, also worked full-stack in a scrum/agile environment

### Projects

#### CEC Programming Competition Lead - Node.js

Mar 2018 - Mar 2019

- Coded and ran the Canadian Engineering Competition 2019 programming competition
- Focused on making the challenge language-agnostic by creating an API server for competitors to interact with, as well as an interactive visual for judges and beta testers to easily comprehend
- Crafted an engineering problem for competitors rather than just a programming problem

#### Orientation Week Website - JS/PHP/CSS/Bootstrap

Feb 2017 - Sept 2018

- Designed, implemented, maintained OWeek website based on requests from various parties
- Created a responsive front-end web design for various size screens on both desktop and mobile
- Made a dynamic user-based system with various roles using smart database management

#### Various Low-Level Projects - C

Apr 2016 – Nov 2018

- Converted assembly files to C for a massive collaborative disassembly of a GBA game
- Created a music player in C capable of running on a FPGA board and processing .wav files
- Analyzed several systems programming concepts in Operating Systems course using code that compared process vs. threads, memory allocation techniques, and task management methods

#### Various Scripts - Python

Oct 2016 - Present

- Fully utilized PRAW, Reddit's API, to log flair and emote usage, mass implement different flair layouts, migrate existing users to new flairs, and automatically flair posts based on keywords
- Created a Markdown to Swagger-YAML script for API documentation, JSON to CSV script for massive data transfer, and fixed a PDF Highlight transfer tool for version differences on manuals