

# Tony Tascioglu

Software Engineering Candidate · Software Developer

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## Summary

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**Languages:** C, C++, Java, x86/ARM, Python, Arduino, Bash, JS, PHP, Go, Bitbake  
**Software:** Linux, Git, Vim, Docker, React, Vue, Apache, NGINX, AWS  
**Hardware:** Microcontrollers, Computers, Arduino, Atmel/ATtiny, STM32, ESP8266, RPi  
**Relevant Courses:** Operating Systems, Intro to Compilers, Data Structures, Algorithms, Digital Computers, Computer Networks, Concurrent Programming, Security and Privacy

**Awards:**  
(2018) Principal's Award, L'Amoreaux CI  
(2018) Citizen of the Year Award, L'Amoreaux CI  
(2017) 21st Century Technology Award, L'Amoreaux CI  
(2014) Principal's Award, S.E. Macmillan SPS

## Experience

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### Embedded Software Developer at Imagine Communications

Jan 2022 - Apr 2022, Toronto

- Embedded software development adding features using C++ and C for the Selenio Network Processor used for TV & other professional broadcasts.
- Designed and implemented virtual audio channel routing for 512 channels into the DSP and for the general outputs of the SNP, adding flexibility.
- Implemented audio gain controls for the DSP inputs with new PCM detection logic and a refactor of the gain and PCM status cache as part of AAP.
- Worked on improving partial JSON support for new AAP features, including new logic to use the channel IDs to process requests instead of index.

### Linux Developer at Wind River Systems (Wind River Linux)

May 2021 - Aug 2021, Ottawa

- Maintained Wind River Linux userspace through numerous patches to the Yocto Project, OpenEmbedded and other open source projects.
- Implemented new application recipe including package test support and broad compatibility which were accepted upstream into meta-oe.
- Responsible for packages including chromium and valgrind, as well as CVE fixes for other applications such as libxml2, redis and ffmpeg.

### Full Stack Developer at Designware

Sep 2020 - Dec 2020, Waterloo

- Full stack frontend and backend development using Vue, HTML+CSS, Go and PostgreSQL throughout the product.
- Redesigned re-implemented pages and menus in user dashboard for release of product using Vue & CSS to improve UX and add features.
- Implemented frontend, backend, and API for new features such as queuing in-app updates for exported builds and a new publishing sidebar.

### Software Engineer Intern at Venngage

May 2019 - Aug 2019, Jan 2020 - Apr 2020, Toronto

- Full stack development using React, Redux, jQuery, PHP, CodeIgniter, NodeJS, Express, MySQL to implement new features and innovative project.
- Implemented features such as Excel Spreadsheet uploading in the editor, templates page CDN and improvements to the chart widgets.
- Worked on the new Favourite Templates front-end and back-end, as well as the new Brand Kit UI. Performed category releases.

## Hobbies, Projects and Activities

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### Linux, Computers and Networks and Security

Jun. 2016 - Current, Toronto

- Expertise using a variety of Linux systems including servers and personal computers with distros such as Debian, RHEL, SUSE, Arch and Gentoo.
- Experience with networking stack and layers, software such as PFSense, OpenWRT and hardware such routers and managed switches.
- Deep understanding of computer hardware and software as well as setting up and managing servers for a variety of applications.
- Experience with the command line, security concepts and exploits such as buffer overflows and XSS as well as tools such as metasploit.

### Microcontrollers, Electronics, and Technology

Sep. 2013 - Current, Toronto

- Experience programming using C & Arduino for Atmel, PIC, ARM microcontrollers and microprocessors such as the Raspberry Pi and ODroid N2.
- Built projects like smart dashboard using an ESP8266, ATTiny, to load data from my backend and display it over I2C LCD and OLED displays.
- YouTube channel featuring electronics and software tutorials, technical explanations and other technology content, with over 410,000 views.

### Embedded Software, IOT and Android Development

Sep 2018 - Apr 2019, Waterloo

- Created an IOT system to trigger relays from both a TFT touchscreen or phone app created using Android Studio.
- Used multiple Arduino micro-controllers, ESP8266 WiFi modules for HTTP requests, TFT touchscreen and custom backend code.

### President & Lead Programmer, VEX/FRC Team 2198 Paradigm Shift

Sep. 2014 - Jun. 2018, Toronto

- Used C++, Java, RobotC and Arduino programming languages to make programs for both user control and autonomous modes.
- Designed hardware subsystem for FRC robot, with CAN and PWM motor controllers, a Linux SBC, and sensors using I2C, UART and SPI.

## Education

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Candidate for BSE in Software Engineering at University of Waterloo

Sep. 2018 - Jun. 2023, Waterloo