

Tony Tascioglu

Software Engineering Candidate · Software Developer

✉ tony@tonytascioglu.com | 🏠 tonytascioglu.com | 📧 tonytascioglu | 📺 TonyTascioglu | 📺 TonyTascioglu

Summary

Languages: C, C++, Java, x86/ARM, Python, Arduino, Bash, JS, PHP, Go, Bitbake

Software: Git, Vim, VSCode, Docker, React, Vue, Drupal, NGINX, Apache, Ansible, AWS

Technologies: Linux, Embedded Systems, Open Source, AV, CLI, Networks, Security

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

Software Developer at **Advanced Micro Devices (AMD)**

Sep 2022 - Dec 2022, Markham

- Kernel mode C/C++ graphics driver development as part of the DAL (Display Abstraction Layer) team working on New Technology Introduction.
- Worked on innovative display features such as Smart Access Graphics allowing laptop displays to switch between integrated and dedicated graphics.
- Reduced display mux switch times by almost 50% to under 2.75 seconds, fastest in the industry, allowing a truly seamless experience switching GPUs.
- Analyzed performance of hybrid graphics gaming features such as FreeMux and CASO through thorough benchmarks and different scenarios.

Embedded Software Developer at **Imagine Communications**

Jan 2022 - Apr 2022, Toronto

- Embedded software development adding features using C, C++ and Java for the Selenio Network Processor, and in particular, for audio processing.
- Designed and implemented virtual audio channel routing for 512 channels for the new AAP feature used for major TV & professional broadcasts.
- Implemented audio gain controls for the DSP inputs with new robust PCM detection logic to improve reliability while reducing costs for customers.
- Worked on improving partial JSON support for new AAP API, 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 **Vennge**

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

Open Source Contributions to RenderDoc at **Team Objective**

Sep 2021 - Current, Waterloo

- Contributed new features to the RenderDoc open-source graphics debugger with our final year capstone project group (5 students.)
- Implemented the "Pixel History" feature for the OpenGL Graphics API, along with all of the necessary OpenGL tests and logic.

Linux, Computers and Networks and Security

Sep 2014 - 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, TCP/IP, sockets, software such as PFSense 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.
- Created an IOT system using ESP8266 to trigger relays from both a TFT touchscreen or phone app created using Android Studio as a design project.
- YouTube channel featuring electronics and software tutorials, technical explanations and other technology content, with over 410,000 views.

Education

Candidate for BSE in Software Engineering at **University of Waterloo**

Sep. 2018 - Jun. 2023, Waterloo