Nicholas Carr

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Skills

Programming	Node.js, TypeScript, Vue, Python, Java, HTML, JavaScript, CSS, C, Arduino
Engineering	SolidWorks, Altium, MATLAB, Jupyter
Certifications	Standard First Aid, AED, CPR Level C, WHMIS, G Suite

Work Experience

Software Developer Co-op – TickTrade Systems   Jan - Apr 2021
- Built dropdown list component with autocomplete and performant support for thousands of items using Angular Material
- Created interactive documentation on components and webpages for design stakeholders and developers using Storybook
- Migrated a currency trading page from Angular.js 1.x to Angular 11, checking in with design stakeholders weekly
- Created strong type definitions for all datatypes used in the application using TypeScript

QA Testing Co-op – Edsby   Feb – Jun 2018
- Tested preview versions of the web app, used a ticketing system to report bugs before they were sent to customers
- Participated in and edited an interview video describing the benefits of the product for parents
- Created demo posts and assignments to show potential customers what a classroom could look like if they were using the product
- Wrote a Python script to combine datasets from two CSV files, migrating data to a new format

Full-Stack WordPress Developer - Zoom Digital   Jul – Aug 2017
- Built a website for a client using HTML/CSS starting from a Bootstrap template
- Used Gulp to automate responsive image resizing and insert the responsive image set onto the site
- Wrote blog posts and product information pages for another client, uploaded it to WordPress
- Used PHP to modify a WordPress template to the client's specifications

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Technical Projects

The Revolver Robot – ENPH 253   May – Aug 2021
- Designed an autonomous robot to collect and drop off soda cans as part of a team of 4 in a design course
- Created electrical schematics and designed perfboard circuit using EasyEDA
- Contributed to mechanical design using OnShape CAD software
- Contributed to PID line-following algorithm and robot controller code, written in C
- Fabricated one copy of robot design by hand at home using corrugated plastic and hand-soldered components to a set of perfboards

Comms Sub-Team Member - UBC Orbit   Sep 2019 – Aug 2021
- Using software-defined radio to test prototype radio hardware
- Working on a Python-based serial test client for satellite-mounted radio hardware
- Writing unit tests for the test client using the Python unittest module

Video Doorbell Project   Aug 2020
- Wrote firmware using Arduino IDE to stream video from an off the shelf ESP32 camera module
- Implemented MJPEG video streaming and MQTT telemetry and control
- Integrated camera into Home Assistant home automation platform

Co-founder - Cursor   Sep 2017 - Jun 2019
- Managed 9 volunteers and hosted 2 technology-related events
- Co-lead a 3-hour React Native workshop for 20 attendees aged 12-16   Jul 2018
- Organized a 12-hour hackathon for 18 participants   Feb 2019

Thinq – THacks 2   Oct 2017
- Used Node.js and Twilio to create a service that would return weather, directions, and other info if requested via text message, so people without mobile data could still get information
- Integrated features in a fast-paced environment; built service within 36-hour time limit
- Won first place at THacks 2

Education

Third-year Engineering Physics student at the University of British Columbia   2019-2024