

EDUCATION

- **University of Ottawa** Ottawa, ON
Bachelor of Applied Science in Computer Engineering *Sep. 2015 – Apr. 2021*

EXPERIENCE

- **MNP LLP** Kanata, ON
Co-Op Developer *Jan. 2018 - Dec. 2018*
 - **SiteCore – C#, Razor, JS, XML, MongoDB, SQL:** SiteCore is an Enterprise WCMS. Involved in quality assurance, testing, debugging, extending the backend and building components according to client requirements.
 - **Adobe Experience Manager – JSP, Java, JS, HTL:** Assisted software architects with development of an AEM prototype for a client bid. Responsible for security, user & group management, workflow and 2 components.
 - **TeamSite – XML, XSL, Java, JS, Spring, Bootstrap, CentOS:** Maintained, debugged and extended an OpenText Teamsite system, a Java-based Spring Boot CMS. Utilized CI and CD in an agile team of five.
 - **Drupal – PHP, Twig, JS, MariaDB, Azure:** Investigated, developed and deployed a Drupal CMS to Azure in a team of three. Responsible for CentOS container prototype, components, search page.
 - **Technical Writing – LaTeX, Python:** Produced high-quality documentation for both non-technical and system administrator targets. Minimal revision was applied to system documentation before submission to clients.
 - **Quality Assurance – Microsoft TFS, Jira, Python:** Designed and executed multiple successful Quality Assurance Protocols, utilized automated testing, hundreds of bugs captured, tracked and resolved.
- **Xalgorithms Foundation** Ottawa, ON
Contributing Developer & Technical Writer *Apr. 2018 - Present*
 - **Interpreter Development – Scala, Ruby, Docker:** The IoR Interpreter parses rules in .xalgo format and runs them against an internal collection of tables and provided sample data. Coded some methods and unit tests.
 - **IoR Software Architecture:** Involved in discussions regarding the implementation of the IoR and .xalgo language. For more information, please visit xalgorithms.org.
 - **Quality Assurance:** Investigates the , posts all bugs to the Xalgorithms Github repositories.

PERSONAL PROJECTS

Projects are unit tested with **Travis CI**, often in a **Heroku** container, and available for code review on Github.

- **Video Games – ThreeJS, PixiJS, LibGDX, Unreal, Socket.IO:** Numerous 1-4 player titles, usually written and tested for use with four Xbox 360 controllers, using Express and Socket.IO for game networking.
- **MorningData – C++, NodeJS:** A seven-segment display sits by my bed and displays the weather, and the arrival time of the next bus at a fixed stop. System composed of an Arduino reading serial input and NodeJS piping formatted OC-Transpo and OpenWeatherMap API Data to a serial port. Next phase: wireless module to connect pi and arduino.
- **SuperPull – NodeJS:** Crawls the filesystem for git directories and stores them in a config file. Executing *superpull* brings all configured repositories and remote branches up to date.
- **RML: Ryan's Micro LISP – C:** Tiny not-quite-ANSI lisp repl. Tokenization and parsing experiment.
- **NodeJS REST APIs – PostgreSQL, Mongo, NodeJS, Express:** Built multiple NodeJS APIs, using clever async database storage & retrieval methods, for projects and internship applications. Most recent: S19 Shopify Dev Challenge

GROUP PROJECTS

- **CanUX Conference Booth Trivia: NodeJS, Socket.IO, WebPack, Heroku, SASS:** Chat & Trivia app that originated as a personal project, but was poached by MNP LLP and a frontend developer was assigned to design a frontend.
- **BusBot: NodeJS, MongoDB:** Developed with M.Orchard. Developed a Slack Bot that pulls & processes data from the OC-Transpo API and formats it for display in slack messages. Caches bus data in MongoDB.
- **LightShow: Blockchain Christmas Tree – NodeJS, Express, Solidity, C++:** Hackathon team of three. Utilized a simulated Ethereum blockchain to record transactions from a simple web app. Judges could use the app to change the color of the tree. Wrote the Node-to-Arduino serial interface for the dApp and the Arduino serial interpreter.