

# Ryan Parker

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Portfolio: <https://ryanparker196.github.io/portfolio/>

## EDUCATION

**The University of Vermont (UVM)**, Burlington, VT

*September 2016 - Dec 2020*

- **Major:** BS Computer Science (CS GPA = 3.52)
- **Minors:** Mathematics, Statistics

**The University of Vermont (UVM)**, Burlington, VT

*January 2021 - Dec 2021*

- **Major:** MS Computer Science (Accelerated Masters Program)

## PROFESSIONAL SUMMARY

My future outlook is to gain experience in software engineering through an internship or co-op then to continue my education by completing UVM's accelerated masters program. This program allows me to start taking graduate level courses during my senior year in order to graduate with my masters after only a single additional year. I hope to transition my experience with static analysis verification tools and both functional and object orientated programming languages into a career in software engineering.

## SKILLS

- **Languages:** Python, Haskell, C/C++/C#, Elm, SQL, Lean, Agda, JavaScript, TypeScript
- **Database:** MySQL, SQLite3
- **Libraries:** React, PrimeReact, React-Router, Selenium, Node.js
- **Methodologies:** SCRUM, Agile, Pair Programming
- **Development Environment:** Linux (Ubuntu or Raspian) using NeoVim, VS Code or Emacs
- **Other:** Bash/FishShell, Unix, Unity, Windows PowerShell, Scripting, Automation

## WORK EXPERIENCE

**Software Verification Research**, UVM, VT

*Aug 2019 – Present*

*Advisor: Dr. Francois Dorais*

- Writing code in Lean to perform static analysis on mathematical theory to verify correctness
- Using proof assistant programming languages to verify properties of deterministic finite state automaton
- Working collaboratively using Git and an Agile development cycle to increase productivity

**Oak Tree Management**, Weston, MA

*May 2016 – Present*

*IT / Website Development*

*(Seasonal)*

- Created and manage: "oaktreemanagement.com"
- Performed system analysis, testing, implementation and user support for platform transitions
- Investigated and addressed Quickbooks system issues to enhance usability and improve functionality

## PROJECTS AND INTERESTS

- Completed both Forward and Reverse Mode Automatic Differentiation implemented in Haskell
- Programmed formal proof of the Chinese Remainder Theorem using static verification in Agda
- Experience creating applications using C++/C in various linux distributions
- Automated Github repository creation and deletion using Selenium with Python
- Created multithreaded programs in C to simulate HDD schedulers and Priority Queues