Ryan Parker

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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 2019 - 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 will allow me to graduate with my masters after only a single extra 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, TypeScript
- **Database:** MySQL, SQLite3,
- **Libraries:** Selenium, React, PrimeReact, React-Bootstrap, Node.js
- **Other:** Bash/FishShell, Unix, Unity, Windows PowerShell, Scripting, Automation
- **Methodologies:** SCRUM, Agile, Pair Programming

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 / DATA ANALYSIS *(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.
- Updated organizational and Quickbooks subsystems to improve and streamline data collection.

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
- Created a 2D zombie survival game using OpenGL and GLUT with C++
- Automated Github repository creation and deletion using Selenium with Python
- Created multithreaded programs in C to simulate a HDD schedulers and Priority Queues
- Passionate about functional programming and creating simplistic and sound software solutions