Victor Boyer

Researcher

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Education

Montana State University — *Bozeman, MT*

Bachelor of Science in Mathematics, GPA: 3.5/4.0 — *May 2022*

- **Montana Math Modelling Competition**, Third Prize — *Fall 2019*
- **Math Club**, Vice President — *Fall 2018 - Present*
- **Relevant Coursework:**, Applied Linear Algebra, Math of Machine Learning, Probability Theory

Montana State University — *Bozeman, MT*

Bachelor of Engineering in Financial Engineering, GPA: 3.2/4.0 — *May 2022*

- **Relevant Coursework:**, Data Visualisations, Financial Modelling, Database Systems

Skills

Languages	Python, R, Julia, Typescript, C++, Rust, CUDA, LaTeX
Frameworks and Packages	H2O, Tensorflow, Flux, ggplot2, MatPlotLib, Pandas, Bash, Proxmox, AWS, Docker

Experience

Foundant Technologies — *Bozeman, MT*

CS Intern — *May 2021 - PRESENT*

- Design and implement CSS/HTML frontend and JS components for custom designed to visuals to client specification.
- Improve UI design and documentation process for onboarding of nontechnical staff.
- Helped reduce one-touch metric for engineering focused issues from 3 days to less than 5 hours.
- Work to manage performance in AWS instances via Kibana and Elastic dashboards.
- Utilized an agile framework in Jira to effectively manage and track user stories for proper time management with over 1250 technical issues addressed.

Montana State University — *Bozeman, MT*

Researcher — *July 2021 - PRESENT*

- Redesign backend computation for algebraic structure decreasing computation speed more than 100 fold through just-in-time compiling and multithreading.
- Research parallels between Farey Diagram and two-bridge knots and links.
- Efficently design and computer Q-Algebra to specificed denominator for insight into representation as a Hausdorff set.

Trade Risk Guaranty — *Bozeman, MT*

Junior Underwriter — *January 2019 - May 2021*

- Advanced cash-flow analysis to model client inefficiencies and minimize surety loss for credit amounts of 50k-300k.
- Work directely with clients to effectively manage bond sufficiency and potential legal issues due to Anti-Dumping/Countervailing entries.

Projects

turnip — *Bozeman, MT*

Researcher — *Spring 2021 - Present*

- A julia based parallel processing project built to calculate set of disticnt algebraic polynomails derived from hyperbolic knots.
- Makes use of Fortran and CUDA code for highly parallel data processing for computationally intense polynomial processing.

Error Analysis Model — *First Interstate Bank*

Student Researcher — *Spring 2022*

- Implemented AI/ML model for error prediction in database of outstanding loans using R (h2o, ggplot2, keras, tidyr) and Python (tensorflow, matplotlib, pandas)
- Reduced manhour time for data-governance team by predicting likely sites of error.