# SPENCER C. IMBLEAU

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## Education

#### **Appalachian State University**

North Carolina, USA Aug 2020 - Present

M.Sc. Computer Science, Concentration in Systems, 3.7

• ABET Accreditation

• Expected Graduation: May 2022

#### **Western Carolina University**

North Carolina, USA

B.Sc. Computer Science, Minor in Mathematics, 3.1

Aug 2015 - May 2019

ABET Accreditation

## **Experience**

#### Teaching, Research Assistant

Aug 2020 - Present

Boone, NC, USA

Appalachian State University

- Instructed undergraduate computer science laboratory classrooms
- Routinely held office hours to further student success
- Conducting analysis on GPU vector graphic rendering techniques with a focus on interactivity
- · Bench-marking and analysis of GPU vector graphic algorithms and data structures

## Systems Engineer I

May 2019 – Jun 2020

Ingles-Markets, Inc. Black Mountain, NC, USA

- · Worked in an Information Technology environment under the Unix Engineering team
- System administration, maintenance, and management of production enterprise servers
- Programmed production software and internal tooling for corporate employees
- · Maintained an on-site data center

## **Projects**

#### 'nvtx-rs', a GPU/CPU Profiler FFI Binding for NVTX in Rust

May 2021 – Present Boone, North Carolina

with Dr. Mitch Parry

• Toolkit for GPU and CPU profiling and analysis with event annotations

Wraps the NVIDIA® Tools Extension SDK (NVTX) with FFI

## Native Java game engine

Aug 2018 – May 2019

with Dr. William Kreahling Cullowhee, North Carolina

- · From scratch with no libraries or dependencies, completely CPU bound
- Demonstrates game theory, rendering, input, physics, and networking
- Implements advanced algorithms such as calculus-based physics and collision detection

### Technical Skills

Languages: Rust, Java, Python, C/C++, Php, SQL, JS, HTML/CSS, Ansible

Human Languages: English★★★★, Danish★☆☆

Developer Tools: Git, Visual Studio Code, Visual Studio, Eclipse, IntelliJ, Google Cloud Platform

Frameworks: WordPress, Django, Selenium

Platforms: RHEL 6/7/8, Fedora, CentOS, Ubuntu, Raspbian, Windows, OSX