SPENCER C. IMBLEAU

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Education

Appalachian State University   North Carolina
M.Sc. Computer Science, Concentration in Systems, 3.7   *Aug 2020 – Present*
- ABET Accreditation
- Expected Graduation: May 2022

Western Carolina University   North Carolina
B.Sc. Computer Science, Minor in Mathematics, 3.1   *Aug 2015 – May 2019*
- ABET Accreditation

Experience

Research Assistant   Jun 2021 – Present
Appalachian State University   *Boone, NC, USA*
- Conducting analysis on GPU vector graphic rendering techniques with a focus on interactivity
- Bench-marking novel approaches to rendering vector graphics leveraging GPU architecture, algorithms, and data structures

Teaching Assistant   Aug 2020 – Present
Appalachian State University   *Boone, NC, USA*
- Instructed undergraduate computer science laboratory classrooms
- Assisted in student success through office hours

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.
- Programmed external 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
with Dr. Mitch Parry   *Boone, North Carolina*
- Toolkit for GPU and CPU profiling and analysis with event annotations
- Wraps the NVIDIA® Tools Extension SDK (NVTX) with FFI
- Leading open-source initiative and working in the open

Native Java game engine   Aug 2018 – May 2019
with Dr. William Kreahling   *Cullowhee, North Carolina*
- Demonstrate various subjects: game theory, design, collision detection, rendering, input, application-layer, networking
- Implemented native calculus-based physics library
- Multiplayer safety, chat, and play

Skills

Languages: Rust, C, Java, Python, Php, C++, SQL, JS, HTML/CSS
Human Languages: English, Danish
Developer Tools: Git, Google Cloud Platform, Visual Studio Code, Visual Studio, Eclipse, IntelliJ, PhpMyAdmin, cPanel, Ansible
Frameworks: Tensorflow, .NET (& Core), Django, Selenium, WordPress
Platforms: Windows, RHEL 6/7/8, Fedora, CentOS, Ubuntu, Raspbian, OSX