# Gabriel Righi

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## Education

**Master of Science in Computer Science**                                                          **Expected May 2025**
University of Illinois Urbana-Champaign, Urbana IL

**Bachelor of Science in Computer Science;** 4.0 GPA                                                          **May 2024**
Washington State University, Pullman WA

## Skills

- **Languages:** C/C++, C#, Python, Go, JavaScript, Java, Haskell
- **Tooling & Platforms:** CI/CD, Docker, Git, GraphQL, Kubernetes, Linux, Make, NUnit, RESTful, Unity Engine
- **Certifications:** CompTIA Security+, Junos, Associate (JNCIA-Junos)

## Experience

**Keysight Technologies**                                                          **May 2023 - Aug 2023**
*Software Engineer Intern*
- Assisted in developing a specialized network appliance by optimizing system performance and streamlining deployment processes through targeted software enhancements
- Developed an embedded fan control mechanism in Golang, boosting chassis fan efficiency by ~20% using Kubernetes metrics; containerized with Docker
- Enabled autonomous deployment and testing of newly tagged operating system builds, improving development speed by ~30% via re-engineering Gitlab CI/CD pipeline
- Designed and executed an advanced visualization system for test outcomes by merging Allure test reports with Python and Golang, optimizing clarity and elevating user engagement

**Washington State University**                                                          **Jan 2023 - May 2023**
*Teacher Assistant - Systems Programming*
- Instructed over 80 students in low-level programming concepts through office hours and code reviews, enhancing their understanding of systems programming
- Crafted additional resources and assignments, creating a more comprehensive learning environment, by coordinating with the professor to improve course materials

## Projects

**Sanctum Core** (Personal) | Github                                                          **Aug 2024 - Sep 2024**
- Designed a scalable Trading Card Game (TCG) simulator backend with multi-threaded lobby management, capable of hosting up to 100 concurrent lobbies with minimal latency, leveraging Azure cloud infrastructure
- Implemented a comprehensive unit and integration testing suite and TCP-based communication protocols for seamless multiplayer gameplay

**Sanctum Playtable** (Personal) | Github                                                          **Jun 2024 - Sep 2024**
- Developed Sanctum Playtable, a Unity-based implementation of Sanctum Core, integrating complex game mechanics, player management, and interactive UI elements to enhance user experience
- Engineered robust networking and synchronization systems in C#, enabling seamless multiplayer interactions with real-time game state updates and efficient communication between clients and servers

**BracketGG** (Personal) | Github                                                          **Jul 2022**
- Aggregated, formatted, and displayed GraphQL queried data from the popular website start.gg, allowing easier visualization of tournament brackets, via a stateless Node JS website
- Deployed Node JS server to the web using Vercel

## Leadership

**Palouse Gaming Club**                                                          **Aug 2022 – May 2024**
*President*
- Orchestrated and executed 20+ successful in-person gaming events, including a large-scale event with 300+ participants, showcasing management skills and capacity to lead projects
- Developed and maintained a professional website catering to sponsors and community members, facilitating seamless communication, sponsorship acquisition, and event promotion