Ryman Barnett

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CAREER SUMMARY

Computer Science graduate with a strong background in C++, cloud systems, and gameplay development. Experienced in designing scalable systems, optimizing performance, and leading technical efforts across game and cloud platforms. Adaptable to new technologies and focused on building reliable, high-performance software systems in C++ and cloud infrastructure roles.

EDUCATION

DigiPen Institute of Technology — Redmond, WA

B.S. in Computer Science — GPA: 3.95 — *Valedictorian, Deans Honors List* **April 2025**

Relevant Courses: Data Structures & Algorithms, Game Engine Architecture, Cloud Computing Design, Low Level Programming

TECHNICAL SKILLS

Programming Languages: C++, Python, C#, Node.js, JavaScript
Cloud & DevOps: Azure, AWS, Docker
Frameworks & Engines: Unreal Engine 5, Unity 6, Godot
Version Control: Git, SVN
Systems & Platforms: Linux, Windows

WORK EXPERIENCE

Data Structures & Algorithms| Teaching Assistant | Redmond, WA 09/2024 – 12/2024
- Tutored over 30 students in foundational algorithmic concepts through group and one-on-one sessions.
- Reviewed and graded assignments with consistent application of evaluation standards.
- Helped students debug, analyze, and optimize data structure implementations.

PROJECTS

Remanence | UE5 Gameplay Programmer | Team of 23 09/2023 – 12/2024
Technologies: Unreal Engine 5, C++, SVN
- Designed and implemented immersive combat mechanics and a dynamic save system with modular expansion.
- Collaborated with designers to raise player engagement by 25% through gameplay balancing.
- Achieved a 50% FPS increase on low-end machines via performance optimizations.
- Introduced automated bots to track versioning changes via Discord, improving collaboration and deployment visibility.

Chlorofell | Gameplay & Tools Programmer / Tech Lead | Team of 12 09/2022 – 04/2023
Technologies: C++, Custom Engine, Python, OpenGL, Git
- Developed a custom C++ engine with a Unity-like in-engine editor featuring 50+ tools, including AI blueprinting and real-time scripting, increasing prototyping speed by 30%.
- Rewrote the rendering pipeline, improving frame rate from <10 FPS to 100+ FPS.
- Created tools and systems enabling designers/artists to build and iterate independently.

Cloud File Server | Backend & Full-Stack Developer | Solo Project 02/2024 – 04/2024
Technologies: C#, Node.js, Docker, Azure, HTML, CSS
- Built a cloud-based file hosting service (C#, Node.js, Docker, Azure) with OAuth2-based user auth .
- Designed and implemented a scalable system architecture using isolated microservices, supporting upload, access control, and deletion.

LEADERSHIP EXPERIENCE

DigiPen Institute of Technology | Chlorofell Tech Lead | Redmond, WA
- Enforced high engineering standards, conducted code reviews, and supported teammates in using Git effectively.
- Collaborated with producers and department leads to ensure interdisciplinary alignment.
- Authored internal documentation to simplify navigation of a large, complex codebase and help team members understand key systems and workflows.