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(Open to Commute/Remote/Relocate)

Jadyn Wu

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Summary of Qualifications

- Experienced with the following programming languages and technologies:

  Python, C#, C/C++, Java, JavaScript, R, MySQL, Unity, Unity3D, Unreal Engine 5, ECS Architecture, AI Behaviors, Git, Unix Scripting, Jenkins, HTML/CSS, WordPress, 3D Max
- Ability to operate in Windows, Mac and Linux based environments and comfortable using IDEs (Visual Studio, Eclipse, Vim) and team-oriented version control (Git/CVS)
- Fully proficient using Prototyping Tools, Automation and QA Testing Tools, Microsoft Office suite (Excel, PowerPoint, Word), and Adobe Creative Suite (Photoshop, Premiere Pro, After Effects, Audition)
- Specialized knowledge in Gameplay Systems Design, Data Structures and Algorithms, Data Analysis and Visualization, Game Physics, Player Controls, and Performance Optimization
- Professional experience in GPU architecture performance optimization, PC component configuration, and system-level automation

Work Experience

Computer Science and AP Teacher — **Toronto International Academy**
Introduction to University Level's Computer Science, AP Curriculums — **October 2024 – Present**

- Teach Grade 11 (ICS3U) and Grade 12 (ICS4U) Computer Science courses under the Ontario Secondary School Diploma (OSSD) curriculum, ensuring high standards of academic achievement and student engagement.
- Develop and deliver comprehensive lesson plans, integrating theoretical concepts with practical programming applications to prepare students for post-secondary studies.
- Collaborate with colleagues to enhance instructional materials and adapt teaching strategies to diverse learning styles.
- Design course structures for upcoming Advanced Placement (AP) courses, including AP Calculus AB/BC, AP Physics II and C, AP Statistics, and AP Computer Science, ensuring alignment with AP standards and objectives.

Game Director and Developer | Self-Employed — **Rogue Studio**
May 2024 – Present

- Directed a multidisciplinary team of 6 in developing a music-themed rogue-like game. Facilitated the prototyping process and delivered critical design feedback to align game mechanics with the creative vision and project goals.
- Drove the design and implementation of game mechanics and systems, overseeing the entire process from conceptualization to prototyping. Refined gameplay elements through iterative development to enhance player experience and engagement.

STEM Teacher | Part-Time — **Intelligent International Education**
OSSD G10-12 Math and Science, AP Curriculum, Contests (AMC, CCC) — **March 2024 – Present**

- Design and implement detailed lesson plans incorporating lectures, hands-on activities, and technology integration to cater to diverse learning styles and maintain student engagement.
- Lead after-school programs, study sessions, and STEM extracurricular activities to reinforce learning, promote collaboration, and spark interest in STEM fields.
- Analyze student performance data to identify trends and adjust teaching strategies, improving learning outcomes.

Math and Science Teacher **Virtute Innovation Academy**

OSSD G11-12 Math, Physics, and Computer Science **Aug 2023 – Aug 2024**

- Planned and designed standards-based lessons tailored to diverse learners, incorporating various modalities to accommodate different learning styles.
- Delivered daily lessons focused on engaging students through interactive and differentiated instruction, achieving an average grade improvement of 22% in a single academic term.
- Facilitated weekly seminars with staff to review course progress, identify areas for improvement, and implement necessary adjustments to enhance student learning outcomes.

Software Design Engineer | Project Lead **East China University of Science and Technology**

Oct 2021 – Aug 2023

- Directed a multidisciplinary team in developing *Chong Qi Qing Chun*, a mobile and disk-based educational application. Translated educational theories into gameplay mechanics while collaborating with academic institutions to meet educational objectives and industry standards.
- Created and integrated the game engine and program structure, ensuring seamless incorporation of educational content with engaging gameplay.
- Designed gameplay mechanics while overseeing automation quality assurance, introducing a new game framework that improved bug detection rates by 40%, resulting in a more stable and engaging learning experience.

Senior Game Developer | Project Lead, Freelance **KID Fans Club**

Apr 2022 – Jan 2023

- Directed a team of 6 game developers, reducing project completion time by 15% through the implementation of agile methodologies and workflow optimization.
- Designed and developed *Migrant*, a top-selling game that generated approximately C$700K in revenue within the first three months of release, featuring innovative gameplay mechanics and immersive storytelling.
- Conceptualized, prototyped, and iterated game features to align with market trends and player preferences. Mentored junior developers, leading to a 30% improvement in code quality and a 25% increase in productivity.

Co-Op / Intern | Full-Time **Advanced Micro Devices, Inc.**

Nov 2020 – Aug 2021

- Collaborated with the architecture team and global performance analysts to understand product specifications and contribute to the development of new GPU architectures
- Developed analysis tools in Python and R to optimize performance within the post-silicon workflow, streamlining processes and enhancing efficiency.

Tutor | Part-Time **University of Washington**

AP Curriculum, English (ESL), and Japanese (JSL) **Aug 2020 – Jul 2023**

- Delivered comprehensive Japanese and ESL language instruction to high school students, tailoring lessons to diverse proficiency levels and integrating reading, writing, speaking, and listening activities.
- Developed engaging, multimedia-based lesson plans that incorporated real-world scenarios and cultural context, enhancing both language acquisition and student engagement. Created original classroom materials, including worksheets, interactive activities, and assessments, to reinforce key concepts and track student progress.

Intermediate Game Developer **1982 Game and Yuki Game**

Jul 2018- Jan 2021

- Developed and optimized game systems and content for the web-based game Yi Zi Qian Jun. Rebuilt the game using Unity 2D (C#) for mobile platforms, leading to a successful release on Android/iOS with streamlined and maintainable update cycles.

Projects

EDI Racing Game – Software Developer | Scholarship of Teaching of Learning (SoTL) | Sep 2023 - Present

- Contributed to the software design and development of an interactive car simulation game using Unity Engine, designed to introduce engineering students to EDI concepts.
- Implemented gameplay mechanics and interactive elements that mirrored real-world biases, enhancing the learning impact by targeting affective learning domains.
- Collaborated with researchers and educators to translate academic EDI principles into engaging and meaningful gameplay experiences.
- Played a pivotal role in creating a gamified lecture tool that influenced over 80% of surveyed participants, who reported improved awareness of privilege, bias, and the role of engineers in technological stewardship.
- Supported the research presented in the paper "Accelerating Awareness: Hidden Equity, Diversity, and Inclusion Learning Outcomes within an Immersive Classroom Activity."

Fabrik Architect's Website - Web Developer | Fabrik Architect Inc. | Oct 2023 – May 2024

- Designed and established user-friendly websites, including optimizing portfolio pages, resulting in a 72% increase in user clicks and subsequently 37% in project consulting.
- Trained 4 staff members on internal web functions, equipping them with the skills to make minor updates and changes independently.
- Developed custom responsive WordPress sites based on design comps, incorporating advanced features such as Custom Post Types, Advanced Custom Fields, and the WordPress Customize API.
- Managed the full lifecycle of software development for 8 critical projects, achieving 100% on-time delivery and maintaining a 16% budget surplus in collaboration with the design team and project manager.

Benchmark-Automation – Software Design Engineer | Project Lead | May 2021 –Aug 2022

- Led a Python automation project to streamline repetitive testing processes for GPU drivers across multiple platforms, analyzing GPU architecture performance. This initiative increased test coverage by 30% and reduced manual testing time by 60%.
- Enhanced industry alignment by leveraging Python automation for benchmarking, reflecting modern software engineering practices.
- Integrated automated testing into CI/CD pipelines with Jenkins, improving build and deployment efficiency by 10%.

Global Game Jam – Game Designer / Developer | 2018 & 2019 & 2020

- Led a team of 7 members to conceptualize, prototype, develop and publish an indie game within 48 hours that generated around 6k sales within the first two weeks of release.
- Implemented game systems and mechanics using Unity (C#) and Python automation scripting, achieving a 15% reduction in project completion time.
- Delivered high-quality game projects under tight deadlines, earning a reputation for creativity, dedication, and leadership within the game development community.

Education

University of Washington, Seattle **Sep 2019 – Aug 2023**

B.A. (JAPANESE) WITH MINOR(S) in **COMPUTER SCIENCE (DATA SCIENCE), APPLIED MATHEMATICS, STATISTICS**

- Scholarship Status: DEAN'S LIST 2020 - 2023 **3.72 / 4.0**
- Related Courses: Game Design and Development, Data Analysis and Visualization, Digital Twin, ESL Teaching

Certifications

- THE UNIVERSITY OF WASHINGTON **ANNUAL DEAN'S LIST** **2020 – 2023**
- Arctic Code Vault Contributor **2020**
- The 5th Annual International Mathematical Modeling Challenge **Finalist** and **Meritorious** **Jun 2019**