Grace Yu

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EDUCATION

CARNEGIE MELLON UNIVERSITY

B.S. Computer Science
December 2019 | Pittsburgh, PA
Minor in Mathematical Sciences

UNIVERSITY OF WASHINGTON

M.S. Computer Science & Engineering
Expected 2027 | Seattle, WA
GPA: 4.0

SKILLS

Go • C++ • Unreal Engine • Python • Java • JavaScript • TypeScript • C • OCaml • SML • LaTeX

LEADERSHIP

RIOT GAMES | Co-Lead, RAD Genders
Mar 2020 - Dec 2024 | Los Angeles, CA

- Set and executed annual goals, roadmap, and budget for Riot's employee resource group dedicated to supporting marginalized-gendered employees with over 400 members.
- Advised and collaborated with product teams to improve gender representation in our games.
- Increased awareness and championed marginalized-gendered employees internally and externally, such as through the VCT Game Changers Women in Esports Panel that received over 5000 concurrent views and the Trans in Gaming stream that received over 48,000 video views.

LINKS

Website: **gyyu.github.io**
LinkedIn: **gyyu00**

EXPERIENCE

RIOT GAMES | Senior Software Engineer | VAL Premier
September 2023 - Present | Bellevue, WA

- Architected, implemented, and loadtested back-end service changes to power a new cosmetic progression system for Premier players, including changes to caching in our client initialization flow that allowed us to triple our traffic without requiring additional compute resources for a smooth launch with zero downtime issues
- Designed and implemented a new, robust matchmaking algorithm and pattern for Path to Pro divisions in Premier that featured Swiss-style seeding sweeps that could recover dropped matches using monitored objects during service blips, powering a system with enough confidence to qualify winners of these matches for professional play

RIOT GAMES | Software Engineer | VAL Competitive + Premier
July 2022 - September 2023 | Bellevue, WA

- Built a new party-up flow in the game client and provisioning flow services for Premier in Regional Beta launch that resolved a major friction point in the play experience
- Contributed to a smooth VALORANT Premier on PC worldwide launch, including running 1M CCU loadtests and on-call support
- Architected and implemented updating a previously internal-only game data pipeline to send events from game servers to platform services on player-facing production environments without impact to server performance, and used this to power live-updating scores in tournament brackets

RIOT GAMES | Software Engineer | VAL Social & Player Dynamics
June 2021 - July 2022 | Los Angeles, CA

- Implemented and maintained as an SME VALORANT's player behavior intervention, social infrastructure, and partying-up services and game client classes
- Designed full-stack service and game client implementations and tech investigations for Muted Words List and Avoid as Teammate features
- Built in-game trackers and expanded our player behavior service to support detecting and actioning on friendly fire transgressions and bot accounts
- Enabled real-time intervention of communications offense incidents by implementing a Kafka event consumer for central platform moderation events

RIOT GAMES | Associate Software Engineer | Esports Digital
Jan 2020 - May 2021 | Los Angeles, CA

- Implemented and was the SME for the back-end infrastructure for Pick'em on Riot Esports Network
- Owned the full-stack implementation of the Trovo embedded video player on the League of Legends esports website that allowed 400,000 concurrent viewers to watch and receive Rewards and Drops for tournaments
- Refactored existing League of Legends esports database service to be game-agnostic to support the VALORANT Champions Tour and other esports
- Maintained the League of Legends and VALORANT watch platforms for tens of thousands of concurrent weekly viewers and operators from over 30 regions

RESEARCH

EHEART LAB | CMU
Prof. Joseph Seering
Jan 2018 - May 2018 | Pittsburgh, PA

- Investigated and analyzed the effect of hate speech rebukes on Reddit with fuzzy kappa techniques.
- Created Reddit text scrapers and hate speech response generators using RNNs and Markov models.

CYLAB INSTITUTE | CMU
Aug 2018 - Dec 2018 | Pittsburgh, PA

- Converted semantics for secure multi-execution with stateful declassification into OCaml specifications to implement information flow control as a browser security solution.

VOLUNTEERING

TEALS | Teacher for LACES, University High School
Aug 2020 - Dec 2021 | Los Angeles, CA

Taught AP Computer Science A to a class of 30+ students with in a team of three. Lectured in bi-weekly classes and helped create class notes, presentations, and assignments to prepare students for the AP exam.

RIOT GAMES | Software Engineering Intern | Esports Digital
May 2019 - Aug 2019 | Los Angeles, CA

- Built a new home page for the League of Legends esports website that ingests VODs, articles, and videos
- Helped set up endpoints for regional content on the home page from the CMS
- Added quality of life changes to our website including a jump to game start feature that had over a 90% utilization rate and is now the default behavior

CARNEGIE MELLON UNIVERSITY
Head Teaching Assistant (Spring 2019) | Teaching Assistant (15-150) Functional Programming
Jan 2018 - May 2019 | Pittsburgh, PA

- Taught three hours of weekly lab sections for over 60 students over three semesters with stellar reviews
- Held three hours of weekly office hours that were highly attended
- Wrote student assignments, including entirely new problems in continuation-passing style and dynamic programming in SML
- Graded student assignments and exams weekly for a 300+ person class
- Managed course infrastructure and maintained a custom-built SML autograder over 10 coding assignments throughout the semester

UBER ATG | Software Engineering Intern | Simulation Team
May 2018 - Aug 2018 | Pittsburgh, PA

- Designed and created an implementation-agnostic scenario format to facilitate cross-industry collaboration for autonomous vehicle testing
- Defined scenarios for pedestrian jaywalking tests in a custom simulation engine built on Unreal Engine 4
- Implemented and designed an algorithm to bidirectionally translate localized coordinates to global positions