

CHRISTOPHER KANG

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EDUCATION

University of Washington, Rising Junior

Triple major in Computer Science, Economics, and Mathematics with Honors

On a merit-based full tuition scholarship

Graduating Spring 2022

GPA: 3.97 / 4.0

SAT: 1570, ACT: 36

Relevant Coursework

Graduate Quantum Computing | Honors Advanced Multivariable Calculus | Intermediate Macroeconomics

WORK EXPERIENCE

Pacific Northwest National Laboratory

Richland, WA

High Performance Computing Intern

Summer 2020-present

- 100x+ improvement in memory consumption through novel research in quantum chemistry algorithms.
- Synthesized theoretical research papers into functioning, optimized code with mentor guidance.
- Currently, the limiting factor in simulating and studying quantum algorithms is memory consumption. With further improvements, scientists could study more complex molecules like vaccines or proteins.

High Performance Computing Intern

Summer 2019

- 80% reduction in compute time for chemistry simulations by implementing a new software pipeline.
- Communicated with computer scientists, chemists, and mathematicians to optimize computations.
- These chemistry simulations are critical for drug design, material analysis, and chemical engineering. The pipeline reduces requirements for quantum hardware, enabling sooner real-world implementation.

Computer Science & Engineering K12 Outreach

Seattle, WA

Outreach Ambassador

Spring 2019-present

- Shared passion for math and programming with 100s of diverse K12 students by hosting introductory computer science workshops, outreach activities, and tours of the UW CSE building.
- Collaborated with other Ambassadors to improve experience of first-time computer science students, transforming existing curriculum to be more inclusive of students from many backgrounds.

LEADERSHIP

CSE Student Advisory Council

Seattle, WA

Chair

June 2019-present

- Served 800+ students through events focusing on student wellness, diversity, and social responsibility; managed a scrappy 15-person team; actively listened to student issues to guide efforts.
- Drafted department-wide values document, leading effort to create a shared vision for the CSE School.
- 2x increased the number of events and initiatives with an organizational redesign, improving member engagement and output. Implemented continuous team feedback on leadership style and goal setting.

At-Large Representative

September 2018-June 2019

- Prepared 50+ undergrads to negotiate salaries by planning and executing the *Career Negotiations* event, where we discussed best practices and invited a speaker from industry to present.
- Collaborated with teammates to execute 8+ events to serve the community

ADDITIONAL INFORMATION

Awards: Honors Top 1% 4-Yr Tuition Waiver ('18), Microsoft Scholarship ('19), Theta Chi Helping Hand Scholar ('18), Top Honors Calculus Student ('19)

Other Service: Allen School Diversity Committee (19-present), LGBTQ student group Q++ (18-present)

Programming: C++, C#, Java, Python, Quantum computing/Q#

Interests: Mechanical keyboards, monetary policy, queer/LGBTQ advocacy, teaching