CHRISTOPHER KANG

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OVERVIEW

Driven student leader who takes initiative and unifies diverse teams by creating a shared vision.
Enjoys solving challenging computational and organizational problems through a goal-oriented approach.
Research focuses in quantum computing, near-term quantum algorithms, and deep reinforcement learning.

EDUCATION

University of Washington, Paul G. Allen Center for Computer Science & Engineering **Seattle, WA**
Bachelor of Science in Computer Science September 2018 – June 2022
Current sophomore in the Allen School
Recipient of four-year tuition waiver from the Honors program

Relevant Coursework

Quantum Computing (CSE 490Q)
Fundamentals of Computing (CSE 311)
Data Structures (CSE 332; Present)
Honors Multivariable Calculus, year 2 (Math 33X; Present)

WORK EXPERIENCE

Pacific Northwest National Laboratory **Richland, WA**
High Performance Computing Intern Summer 2019

- Classical approaches for molecular simulation are infeasible as molecule size increases
- Quantum algorithms provide feasible simulation methods, but require qubits with long lifespans
- Developed a data format and scripts to unify coworkers' optimizations which reduced circuit times up to 80%
- Produced a cohesive pipeline to extract NWChem Hamiltonians and calculate accurate energy level values

Paul G. Allen School of Computer Science and Engineering **Seattle, WA**
Student Assistant September 2018-present

- The Allen School has over 100+ industry affiliates who host talks and presentations to students
- Worked on a team of three undergraduates and directly assisted External Relations Director
- Created a shared tracking spreadsheet after independently recognizing the need for group information store
- Supported over 18+ affiliates with presentations, with over 700+ attendees in total

Pacific Northwest National Laboratory **Richland, WA**
Data Sciences Intern Summer 2018

- 16,000+ new vulnerabilities were identified in 2018, each requiring a human-generated score for severity
- Quickly learned TensorFlow and independently implemented state-of-the-art ML algorithms in 10 weeks
- Collaborated with supervisor to ensure code met criteria; Identified / documented code issues for future repair
- Created codebase allowing inference of vulnerabilities via graph-based semi-supervised labeling algorithms

LEADERSHIP

CSE Student Advisory Council, *Chair* June 2019-present

- Chief representative for the undergraduate student body for admin, faculty, and grad students
- Leading 1300+ undergraduates while the department has tremendous faculty growth (>6 professors/year)
- Advancing student wellness, diversity, and social responsibility across the School

CSE Student Advisory Council, *At-Large Representative* September 2018-June 2019

- Freshman representative on the council (one of two)
- Chaired the *Career Negotiations* event, describing how to negotiate salaries, ~50 attendees
- Authored internal reports to advance student perspectives within admin discussions

ADDITIONAL INFORMATION

Skills: Python (TensorFlow, Numpy), C#/Q#, Java, Quantum computing