

Miya Natsuhara

CSE 206

Paul G. Allen School of
Computer Science & Engineering
University of Washington, Seattle, WA

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Education

University of Washington - Seattle (January 2019 - June 2020)

M.S. Computer Science

University of Washington - Seattle (September 2014 - December 2018)

B.A. Mathematics

B.S. Computer Science

Minor American Sign Language

Bellevue College (September 2012 - June 2014)

A.A. through Running Start Program

Teaching Experience

University of Washington - Assistant Teaching Professor (June 2023 - present)

Autumn 2023 - Instructor for CSE 121

[Instructor for CSE 121/122] Responsibilities: Developed, prepared, and delivered material and course work for weekly W, F 50-minute lectures (several hundred students) with interactive components, group work, and in-class activities (using Slido). Advised and assisted students and evaluated their submitted work. Managed and supported a staff of several dozen TAs.

University of Washington - Lecturer (March 2021 - June 2023)

Spring 2023 - Instructor for CSE 121

Winter 2023 - Instructor for CSE 122

Autumn 2022 - Co-Instructor for CSE 122

Summer 2022 - Developing CSE 12X Curriculum and Course Policies

Spring 2022 - Instructor for CSE 142

Winter 2022 - Instructor for CSE 190Y

Autumn 2021 - Instructor for CSE 190Y

Spring 2021 - Instructor for CSE 142

[Instructor for CSE 121/122] Responsibilities: Developed, prepared, and delivered material and course work for weekly W, F 50-minute lectures (several hundred students) with interactive components, group work, and in-class activities (using Slido). Advised and assisted students and evaluated their submitted work. Managed and supported a staff of several dozen TAs.

[Co-Instructor for CSE 122] Responsibilities: Collaborated and coordinated with my co-instructor to develop, prepare, and deliver material and course work for weekly W, F 50-minute lectures (~500 students) with interactive components, group work, and in-class activities (using Sli.do). Advised and assisted students and evaluated their submitted work. Wrote and revised weekly programming project assignments, quizzes, and a final exam. Managed and supported a staff of ~30 TAs alongside my co-instructor.

[Developing CSE 12X Curriculum and Course Policies] Responsibilities: Collaborated with a team of instructors and TAs to design the schedules, course policies, and materials for new courses CSE 121, CSE 122, and CSE 123. Worked with this team to incorporate socio-technical issues and reflection into curriculum, provide scaffolding to better accommodate students from various backgrounds, and ensure that our materials are accessible for students with a variety of abilities.

[Instructor for CSE 142] Responsibilities: Developed, prepared, and delivered material and course work for weekly M, W, F 50-minute lectures (~300 students) with interactive components, group work, and in-class activities (using PollEverywhere). In Spring 2021, held the course completely virtually (over Zoom); in Spring 2022, held the course completely in-person on campus. Advised and assisted students and evaluated their submitted work. Managed and supported a staff of ~15 TAs.

[Instructor for CSE 190Y] Responsibilities: Developed, prepared, and administered material and course work for weekly 90-minute workshop-style class sessions (~25 students) with emphasis on group work, practice problems, and supporting students to build and develop academic skills such as study schedules, collaboration, test-taking strategies, and metacognition to support concurrent enrollment in CSE 142 (Autumn) or CSE 143 (Winter). Students referred to the CSE 190Y support courses were either participating in the Allen School's Startup Program (supporting incoming Allen School Freshman Direct Admits with limited programming experiences and/or from low-income, first-generation, and underserved communities), or other students who had been identified as benefitting from such a support course. Advised and assisted students and evaluated their submitted work. Developed small

homework assignments (3 assignments per week) along with grading rubrics, and managed and supported a staff of 7 TAs.

University of Washington - Predoctoral Instructor (June 2019 - August 2019)

Responsibilities: Developed, prepared, and delivered material and course work for weekly M, W, F 50-minute lectures (~180 students) with interactive components and in-class activities (using PollEverywhere). Advised and assisted students and managed and supported ~10 TAs. Wrote and administered a midterm and final exam.

University of Washington – CSE142 TA / Head TA (Jan 2016 - June 2019)

Jan 2016 - June 2016 – TA

June 2016 – June 2019 – Head TA

Class sizes of 400-1000 students

[TA] Responsibilities: Planned and facilitated weekly quiz sections (~20 students) incorporating review, individual practice, and group work. Graded weekly assignments and midterm and final exams, assisted students in the Introductory Programming Lab (IPL) regularly.

[Head TA] Responsibilities: Planned and led weekly staff meetings, assisted instructors in development of course curriculum and expectation, managed coordination and organization of TAs. Depending on the quarter, these responsibilities may have been in addition to normal TA responsibilities.

Self-Employed – Private Mathematics & ASL Tutor (May 2011-July 2016)

Responsibilities: Assisted students in understanding concepts and schoolwork completion, and provided additional skill-building exercises. Communicated progress and planned work with students and parents.

The Little Gym of Kent, Federal Way, Maple Valley - Lead Instructor, Assistant Manager (June 2012 - Jan 2016)

Responsibilities: Taught gymnastics classes (ages 3-12), adjusting curriculum and approach to fit students' age, needs, and learning style. Provided quality customer service relations, trained new employees, and assisted in managing the operations of the gym.

Software Engineering Experience

Microsoft Visual C++ Libraries Team – Software Engineer (April 2020 - March 2022)

Responsibilities: Analyzed and worked within pre-existing large code bases using advanced C++ features and techniques. Designed the implementation of several advanced C++20 features and coordinated the completion of this feature by several contributors. Communicated effectively with other members of the team and collaborated with external contributors through our [open-source project](#). Provided detailed feedback, suggestions, and collaboration through code reviews. Served as a mentor to junior members of the team.

Microsoft Visual C++ Libraries Team – Software Engineering Intern (June 2018-Sept 2018)

Responsibilities: Analyzed and worked within pre-existing large code bases using advanced C++ and concurrent features and techniques. Designed, implemented, tested, and profiled performance of several parallel algorithms using research-backed techniques. Communicated effectively with other members of the team.

Microsoft OPG, Intentional Team - Software Engineering Intern (June 2017 - Sept 2017)

Responsibilities: Redesigned a large-scale project involving tokenizing, parsing, and interpreting text based on a given grammar using the style of Intentional Programming in C#. Communicated and collaborated effectively with other members of the team.

Mentoring Experience

[Microsoft Tech Resilience Mentoring Program](#) - Mentor Coordinator (June 2021 - December 2021)

Responsibilities: Developed and delivered trainings with a co-mentor-coordinator for new mentors (Microsoft employees) entering the program, modeling and discussing how to manage small-group discussions and active learning techniques. Provided insight and advice for mentors learning how to interact with mentees (CS1 and CS2 college students), manage group meetings, and facilitate productive discussions.

[Microsoft Tech Resilience Mentoring Program](#) - Mentor (August 2020 - December 2020: during Pilot offering)

Responsibilities: Facilitated group meetings with a small group of mentees (CS1 and CS2 college students) discussing topics such as metacognition, recognizing discomfort and sense of belonging, growth mindset, and self-efficacy. Provided and helped incorporate feedback to improve on the program's pilot run.

Grants & Awards

Bob Bandes Award - Honorable Mention, Paul G. Allen School of Computer Science & Engineering, University of Washington
2017-2018 Academic Year

Conferences

“C++20’s <chrono> Calendars and Time Zones in MSVC,” CppCon 2021

Presentation viewable [here](#).

Languages & Skills

- English - native
- American Sign Language (ASL) - fully proficient
- Java programming, C++ Programming, Visual Studio
- Critical thinking and time-management skills, dependable, focused