Allison Obourn

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Teaching Experience

Edmonds College, Computer Science Department
    Assistant Professor *2020 - present*
        CS   115 - Introduction to Programming
        CS& 131 - Computer Science I C++
        CS   132 - Computer Science II C++
        CS   133 - Computer Science III C++
        CS& 141 - Computer Science I Java

University of Arizona, Computer Science Department
    Senior Lecturer *2016 - 2019*
        CSC 110 - Computer Science I
        CSC 210 - Software Development
        CSC 337 - Web Programming

University of Washington, Computer Science and Engineering Department
    Lecturer *2013 - 2016*
        CSE 142 - Computer Science I
        CSE 143 - Computer Science II
        CSE 143h - Computer Science II Honors Section
        CSE 154 - Web Programming
        CSE 490o - Computer Science Outreach Seminar
    Head Teaching Assistant *2012 - 2013*
        CSE 143 - Computer Science II
        CSE 143x - Accelerated Computer Science 1&II
    Teaching Assistant *2008 - 2011*
        CSE 142   - Computer Science I
        CSE 143   - Computer Science II
        CSE 143h   - Computer Science II Honors Section
        CSE 331   - Software Design & Implementation
        CSE 490H/552 - Distributed Systems

Curriculum Development

Data Analytics Certificate Programs, Edmonds College *2021 - 2023*
    Collaborated with colleagues, administrators, and subject matter experts to design two new certificate programs in the field of Data Analytics. The first certificate was to support those just entering the profession and the second, to assist those already in the field to learn the skills they need to advance their careers.

CS 119, Introduction to Data Processing, **CS 122**, Introduction to Statistics, Edmonds College *2022*
        Wrote a curriculum for and taught the first offering of CS 119 and CS 122.

CS 115, Introduction to Programming, Edmonds College *2021*
        Contributed materials to and provided an alternate curriculum for the change
        In language of CS 115 from Visual Basic into Python.

CSC 110, Computer Science I, University of Arizona *2016-2018*
        Took the lead in developing and was the first instructor of a new introductory
        computer science course in a language new to UA (Python).

Introductory Sequence, University of Arizona *2016-present*
        Was an active member of the committee in charge of developing a new four course
        introductory computer science sequence.

Service

Bachelor of Science in Computer Science Committee, Edmonds College Representative *2022 -*
        Participated in a working group with CS educators from other colleges in the state and run by the
        Washington State Board of Community and Technical Colleges to plan and implement a
        Bachelor of Science degree in Computer Science program at Edmonds.

Edmonds College Computer Science Web Page Editor *2022 -*
        Created web pages with information about new programs, like data analytics and update the
        general information when necessary.

Edmonds College AI Incubator Committee *2022 -*
        Worked with other faculty, administrators, and staff to help identify the equipment necessary to
        Create our own AI lab. Collaborated with other faculty to design a 2 credit AI for Everyone
        course curriculum.

Edmonds College Online Course Committee *2022 -*
        Worked with other faculty, administrators, and staff to help develop a set of recommended tools
        and best practices for online teaching.

Outreach

Arizona Computer Science Standards Working Group *2018*
        Worked with other Arizona educators to come up with proposed computer
        science education standards for K-12 in Arizona.

UW K-12 Outreach Coordinator *2014 - 2016*
        Arrange for various schools to visit UW CSE and visits from UW CSE students
        to schools, coordinate the UW CSE open house and other outreach events.

UW in the High School Faculty Coordinator *2013 - 2016*
        Support teachers teaching UW CSE classes for UW credit in high schools.

NCWIT Aspirations Washington Affiliate Committee Member *2013 - 2016*
        Help organize the Washington Aspirations award ceremony.

Summer Camp Instructor *2013 - 2015*
        Teach week long summer camps to middle and high school students.

Puget Sound Computer Science Teachers Association Secretary *2014 - 2015*
        Recorded minutes of meetings.

Tools

Computer Science DTA Requirements Visualizer *August 2022*

A website where students can see all courses that all schools that have a direct transfer agreement require. They can view requirements by school, view all schools that require a certain course and see the prerequisites for all relevant courses.

ECGui.py and DrawingPanel.py Integration *August 2022*

Combined a small GUI library written by a colleague with the graphics library my co-authors and I included with Building Python Programs. Added additional functionality so that the library can be used in three different ways, depending on the instructor's preference.

Publications

SIGCSE Nifty Assignments Panel – Gerrymandering *February 2019*

A CS1 level program where students code a mathematical model
to determine if states are gerrymandered (accepted, presentation upcoming)

Building Python Programs *January 2019*

Introductory Python programming textbook. Written with Stuart Reges and
Marty Stepp. Published by Pearson.

SIGCSE Nifty Assignments Panel - Melody *March 2015*

A CS2 level program where students write classes to represent a song
comprised of notes.

"Birds of a Feather: Web Programming." *March 2016*

Panel held at SIGCSE 2016 Symposia.

Education

Master's Degree in Computer Science and Engineering *March 2013*
University of Washington, Seattle WA

Bachelor of Science with Honors in Computer Science *June 2011*
University of Washington, Seattle WA
Study Abroad, **University of Edinburgh**, Edinburgh, United Kingdom, September 2008 – May 2009

Industry Experience

Question Developer and R&D, karat^, Seattle, WA *August 2019 – January 2020*

Wrote technical interview questions for software engineering candidates and participated in research and development efforts. These efforts included improving interview clarity for candidates to help level the playing field and evaluation of how successful the current interview process was.

Development Intern, Isilon Systems, Seattle, WA *June – September 2011*

Wrote a Wireshark plugin to dissect the protocol used in HDFS, the Hadoop file system and committed this plugin to Wireshark. Additionally, added statistics gathering about the same protocol to the OneFS kernel (the Isilon kernel, based on FreeBSD). Finally, wrote client code to read and write files in HDFS.

SDET Intern, Microsoft, Seattle, WA *June - September 2010*

Wrote a program to validate and generate XML for submitting to services in Dynamics AX. Used C# to retrieve information from the web, parse it, integrate it in the test framework and present it in multiple interfaces.

Thesis Projects

Displaying Diverse Perspectives in the Living Voters Guide *March 2013*
Master's Thesis advised by Alan Borning, University of Washington
Implemented a non-biased method of choosing a couple of opinions to display to a user that are representative of the opinions of other users using the system. Used NLP techniques to cluster and segment user opinion text.

Improving DHT Routing Performance in Harmony using Client Caching *June 2011*
Undergraduate Thesis advised by Tom Anderson, University of Washington
Implemented and evaluated a new client-side caching routing system for Harmony, a strictly consistent distributed system with a circular keyspace. The new method provided a 100 times decrease in lookup latency for the basic system and a 10 times decrease for the pinging configuration, across 95% of the lookups

Activities and Awards

CSE Master's Student Representative, University of Washington *September 2012- March 2013*
Computer Science Mentor, University of Washington *2010 - 2012*
ACM-W UW Chapter Secretary, University of Washington *June 2010 – June 2011*
Departmental Service Award, University of Washington Computer Science & Engineering *2011*
National Merit Commended Scholar *2006*

Languages

Proficient in: Python, Java, C, C++, HTML, CSS, JavaScript, NodeJS, PHP

Working Knowledge of: SQL, C#, Bash Scripting, Haskell, ML, Perl