

# ARDI MADADI

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## QUALIFICATIONS

Java, Python, C++, C, Ruby, Lisp, SML, PHP, JS, React, SQL

Built over 200 websites as a web developer

English, Turkish and Persian; functional in German

## EXPERIENCE

### SOFTWARE DEVELOPMENT ENGINEER INTERN

AWS - Seattle | Fall 2021 & Summer 2022

- Created, and designed innovative products and services
- Created solutions to run predictions on distributed systems
- Built distributed storage, index, and query systems.
- Coded solutions starting with broadly defined problems.

### RESEARCH ASSISTANT

PLSE Lab - University of Washington | 2020 - present

- Design and execute mutation testing research experiments with the goal of improving the current mutation operators
- Draft research proposals
- Develop software to evaluate the performance of a variety of mutation testing models (see projects)
- Review literature on defect prediction, mutation testing, and statistical analysis

### TEACHING ASSISTANT - CSE331/CSE403/CSE390R

University of Washington | 2020 - present

- Develop original content in Java, demonstrating unit testing
- Received the highest rating possible as a TA
- Teach section
- Held office hours

### INSTRUCTOR

CSE331 - University of Washington | Summer 2021

- Designed curriculum and lecture/section material
- Taught lectures and pre-recorded videos for 50+ students
- Managed course infrastructure
- Hired and led teaching assistants

### FULL STACK WEB DEVELOPER

Freelance | 2002 - 2020

Subrosa İletişim | 2007 - 2011

- Created cross-platform services and applications, extending coverage from the web to mobile apps
- Developed a real-time ticket sales platform using web scraping to service customers from politically restrictive countries (see projects)
- Designed themes and templates for WordPress/Joomla
- Wrote custom CMS Plug-ins for businesses including clinics, transportation, and property rental companies
- Implemented two-way pathways for social media that expanded social media reach up to twenty-fold
- Utilized SEO standards, resulting in top search rankings for specific keywords

## EDUCATION

### UNIVERSITY OF WASHINGTON

Master of Science in Computer Science | 2021 - Jun 2023

Bachelor of Science in Computer Science | 2019 - 2021

Cumulative GPA (BS): 3.75

Cumulative GPA (MS): 3.95

### PAST COURSEWORK

Machine Learning - CSE 446

Programming Languages - CSE 341

Data Structures (algorithms) and Parallelism - CSE 332

Software Design and Implementation - CSE 331

Foundations of Computing I - CSE 311

The Hardware/Software Interface - CSE 351

Systems Programming - CSE 333

Foundations of Computing II - CSE 312

Introduction to Data Management - CSE 344

Computer Science Education Research Seminar - CSE 590E

Probabilistic Robotics - CSE 571

Software Engineering - CSE 503

### CURRENT AND UPCOMING COURSEWORK

Introduction to Compiler Construction - CSE 501

Introduction to Algorithms - CSE 421

Computer Vision - CSE 576

## PUBLICATIONS

H.Potter, A. Madadi, R. Just, O. Cyrus "In-Context Programming Language Documentation" | SPLASH Onward! | 2022

A. Madadi "The Negative Potential of Singularity on the Human Species" | Una Voce | Tacoma, WA | 2018

## PROJECTS

**Automated Ticketing System:** A fully-automated service that used Web scraping to track pricing, exchange rate, and availability of event tickets. It catered to Iranians who couldn't access the tickets due to government suppression. Customers would purchase a ticket, and once they arrived in Turkey, they could pick up the tickets and go to their events. At least 1500 tickets were sold through this platform.

**Campus Map:** Two Google Maps-like web applications for the UW campus. The apps implemented A\* search and Dijkstra's algorithms using priority queue min-heap to find shortest paths between two locations. They also provided visual interface features for the user to auto-complete search terms, zoom in/out of the map, turn-by-turn navigation directions, save the image of the map, and email the results to a friend. One of the apps used parallelism to improve program performance.

**Natural Mutants Work Evaluation:** Python program that reads data generated by the Major framework for different types of code defects and generates a visual evaluation comparing the number of unit tests used to detect all the artificial fault for each type of defect.

## LEADERSHIP AND VOLUNTEER WORK

**Coordinator / Host** | The DUB Seminar Series - University of Washington | Seattle, WA | 2021 - Present

**Keynote Speaker** | U.S. State Department Bureau of Population, Refugees, and Migration Conference | Washington, D.C. | Nov 2016

**Ambassador** | Opportunity Outloud - Washington State Opportunity Scholarship | Seattle, WA | 2019 - 2020

**Mentor** | Girls Who Code | Tacoma, WA | 2018 - 2020