

RAIDA KARIM

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EDUCATION

University of Washington (UW), Seattle, Washington (WA), USA

- **B.S. in Computer Science** Sep 2017 – Jun 2021
 - Course Highlights: Data Structures & Parallelism, Database Management, Computer Science Pedagogy, Machine Learning, Artificial Intelligence (AI), Robotics Capstone, Natural Language Processing (NLP), Entrepreneurship, AI-Based Mobile Robotics

RESEARCH INTERESTS

- Applications of Robotics, Artificial Intelligence, Human-Computer Interaction, and Quantum Computing to address health, and sustainability issues
- Using Machine Learning, and Data Science to analyze large-scale data and inform sustainable interventions for the environment and human health

RESEARCH EXPERIENCE

Human-Centered Robotics Lab, UW Seattle, WA

- **Undergraduate Researcher** Jun 2020 – Present
- Project: Stress Research - Saving Adolescent Lives with A Social Robot EMAR
- Supervisors: Dr. Maya Cakmak, Dr. Elin A. Björling and Dr. Patrícia Alves-Oliveira
 - Develop software in a social robot using JavaScript, HTML, and CSS to measure and intervene in adolescent stress
 - Conduct pilot and user participatory sessions with teenagers to test interventions and collect feedback
 - Mentor younger students and one undergraduate researcher to provide feedback and guidance
 - Conduct outreach to raise mental-health awareness among middle- and high-school students (St. Thomas School, April 2021)

NLP Group, Computer Science & Engineering (CSE) Department, UW Seattle, WA

- **Undergraduate Researcher** Sep 2019 – Mar 2020
- Project: Math Word Problem Generation using Transformer Model Architecture
- Supervisors: Dr. Yejin Choi and Saadia Gabriel
 - Generated, analyzed, and visualized math word problems from MathQA dataset ([https://math qa.github.io/math-QA/](https://mathqa.github.io/math-QA/)) that consists of 37, 200 math word problems
 - Conducted semantic analysis using transformer model architecture

INDUSTRY EXPERIENCE

Cisco Systems, Inc., Seattle, WA

- **Software Engineering Intern** Jun 2020 – Sep 2020
 - Automated populating and sending customized welcome emails to global customers of Webex messaging, meeting, and calling services for distinct licenses
 - Gained software development experience using Java Spring Boot framework, Git for enterprise collaboration, Mockito and TestNG testing frameworks to develop robust test suites

TECHNICAL QUALIFICATIONS

- Programming Languages: Java, Python, SQL/SQL++, C/C++, R, JavaScript, HTML, CSS
- Libraries/Frameworks: PyTorch, Matplotlib, Cozmo SDK, OpenCV, NumPy, Spring Boot, RStudio
- Tools: Git, Linux/Unix, IntelliJ, Maven, LaTeX, Azure, AWS, Spark, AsterixDB

RELEVANT COURSE PROJECTS

Binary Text Classification - Machine Learning, CSE 446

Mar 2021

- Classified movie reviews as Positive (1) or Negative (0) on Stanford Sentiment Treebank (SST-2) dataset using Recurrent Neural Network (RNN) types of vanilla RNN, Long short-term memory (LSTM), and Gated recurrent units (GRUs)
- Embedded input “token” from movie reviews in high-dimensional continuous space using GloVe embeddings
- Generated a hidden state from each RNN cell feeding last hidden state into fully connected layer producing a single prediction between 0 and 1

CozmoTA – Robotics Capstone, CSE 481

May 2020 – Jun 2020

- Developed a robot Teaching Assistant (TA) using Cozmo Software Development Kit (SDK) in a three-member team
- Implemented navigation, manipulation, and perception capabilities in the robot TA for elementary classes

Bio.me (Startup Prototype) – Entrepreneurship, CSE 490

Jan 2020 – Mar 2020

- Prototyped startup to deliver instant nutritional service to IBS (Irritable Bowel Syndrome) patients
- Solidified technicalities of product features with market fit
- Managed dependencies of all teams – research, marketing/sales, and customer support

Seattle Gentrification App – Data Analysis & Visualization, Informatics 201

Jan 2019 – Mar 2019

- Developed an interactive app to show gentrification effects in Seattle comparing to other US cities

- Utilized RStudio packages for data wrangling, interactive plot visualizations, and user interface

**TEACHING
& PEER
MENTORING
ENGAGEMENT**

CSE 190B: CSE Direct Admit Seminar, Paul G. Allen School, UW

- Undergraduate Teaching Assistant Sep 2020 – Dec 2020
 - Organized and led a seminar for first-year computer science students interested in getting involved in undergraduate research and pursuing research-based careers

CSE 390T: CSE Transfer Seminar, Paul G. Allen School, UW

- Invited Lecturer May 2020
 - Delivered lecture on research opportunities in Allen School and UW, and research-based career pursuits to newly admitted CSE transfer students from community colleges

Big/Little Mentorship Program, Association for Computing Machinery (ACM), UW

- Peer Mentor Apr 2020 – Jun 2020
 - Familiarized a newly admitted CSE student with departmental offerings and student experience in a mentoring partnerships

Mentor Power for Success Program (MPFS), Office of Minority Affairs & Diversity (OMA&D), UW

- Program Lead Sep 2019 – Dec 2019
 - Provided mentoring training, advising and weekly feedback to mentor-protégé pairs
 - Coordinated logistics, and marketing for 6 events serving up to 60 students at a time
- Peer Mentor Sep 2018 – Dec 2018
 - Provided mentoring to a new UW student from minority background to familiarize with campus experience, academics, and student support services

**ACTIVITIES &
LEADERSHIP**

Google Computer Science Research Mentorship Program (CSRMP), Virtual

- Mentee Feb 2021 – Present
 - Mentor: Dr. Igor Mordatch
 - Engage in 1:1 mentoring relationship with a Google Brain research scientist and network with other CSRMP fellows

Husky Leadership Certificate (HLC) Program, UW Seattle, WA

- Mentee Jan 2021 – Present
 - Engage in 1:1 mentoring relationship with a UW alumni to reflect on leadership skills gained through experiences and develop a leadership portfolio, which can be found here: <https://sites.google.com/cs.washington.edu/raidak>

AmeriCorps College Support Services Corps, UW Seattle, WA

- Student Coach Jan 2021 – Present
 - Coach college students to support academics, extracurricular and future aspirations through service, fundraising, and professional development engagement with URP, DRS, CSRMP, HLC, and McNair

Disability Resources for Students (DRS), UW Seattle, WA

- Note-taker Jan 2021 – Mar 2021
 - Provide access to my own class notes from the Artificial Intelligence (CSE 473) course lectures to classmates whose documented disability affects their ability to document their own class notes

Undergraduate Research Program (URP), UW Seattle, WA

- Undergraduate Research Leader Sep 2020 – Present
 - Excite students about undergraduate research through outreach activities such as class presentations and panels, and direct them to resources and opportunities for developing undergraduate research career
- Abstract Reviewer Feb 2020, Mar 2021
 - Reviewed and edited abstracts of research presentations for the 23rd and 24th UW Undergraduate Research Symposium
- Oral Presentation Assistant Apr 2019
 - Assisted setting up oral presentation podiums, room technologies, and facilitated 10 presenters with timing and slide deck upload in the 22nd UW Undergraduate Research Symposium

COVID-19 Literature Surveillance Team (LST), UW Seattle, WA

- Web Developer May 2020 – Jun 2020
 - Worked on software integration to overhaul the navigation of the website

Association for Computing Machinery (ACM), UW Seattle Chapter, WA

- Secretary Sep 2019 – Jun 2020
 - Elected to represent CSE peers; administered memberships, registrations, and documentations
 - Coordinated CSE Research Night 2020 for 150+ undergraduates; co-organized quarterly events

Engineering Discovery Days, UW Seattle, WA

	<ul style="list-style-type: none"> ▪ Project Presenter <ul style="list-style-type: none"> • Presented projects of Human-Computer Interaction (HCI) to visitors 	Apr 2020
	STEM Paths Innovation Network (SPIN) Girls, UW Seattle, WA	
	<ul style="list-style-type: none"> ▪ Event Organizer <ul style="list-style-type: none"> • Organized Meet & Greet, and Mentoring Circles for program participants 	Jun 2018 – Jul 2018
RESEARCH PRESENTATIONS	Stanford Research Conference (SRC), Virtual	Apr 2021
	<ul style="list-style-type: none"> • Selected for poster presentation about research on adolescent stress intervention with social robot 	
	National Conference on Undergraduate Research (NCUR), Virtual	Apr 2021
	<ul style="list-style-type: none"> • Selected for poster presentation about research on adolescent stress intervention with social robot 	
	UW Annual McNair Conference, Virtual	Apr 2021
	<ul style="list-style-type: none"> • Selected for poster presentation about research on adolescent stress intervention with social robot 	
	UW Undergraduate Research Symposium, Virtual	May 2021
	<ul style="list-style-type: none"> • Selected for poster presentation about research on adolescent stress intervention with social robot 	
CONFERENCE PARTICIPATION & TOURS	International Conference on Social Robotics (ICSR), Virtual	Nov 2020
	<ul style="list-style-type: none"> • Participated in keynote, robot demo, and paper discussion sessions 	
	Grace Hopper Celebration for Women in Computing, Virtual	Sep 2020 – Nov 2020
	<ul style="list-style-type: none"> • Participated in workshops held on mentorship, work-life balance, and career fair 	
	ACM Richard Tapia Celebration of Diversity in Computing, San Diego, CA	Sep 2019
	<ul style="list-style-type: none"> • Represented Allen School in workshops and career fair booth • Participated in workshops held on resilience, journal publication, and career fair 	
	Tableau Site Visit, Tableau Software, Seattle, WA	Nov 2018
	<ul style="list-style-type: none"> • Participated in professional development workshop in a cohort of 20 UW students • Engaged in informational and networking sessions with Tableau employees 	
HONORS & AWARDS	UW Undergraduate Conference Travel Award	Jan 2021
	<ul style="list-style-type: none"> • Awarded for poster presentation on research about stress intervention with social robots at NCUR 	
	Levinson Emerging Scholars Award	Oct 2020 – Jun 2021
	<ul style="list-style-type: none"> • Received for research on stress intervention with social robots 	
	UW CSE Grace Hopper Conference Scholarship	Jul 2020
	<ul style="list-style-type: none"> • Received registration funding to participate in Grace Hopper Conference from Allen School 	
	UW OMA&D Merit Award Scholar	Mar 2018 – Dec 2020
	<ul style="list-style-type: none"> • Received for academic and scholarly accomplishments as an OMA&D student 	
	Mary Gates Research Scholar	Mar 2020
	<ul style="list-style-type: none"> • Received for research on stress intervention with social robots 	
	Denice Dee Denton Endowment in CSE	Sep 2019
	<ul style="list-style-type: none"> • Received for commitment to social justice, diversity, and excellence as a CSE student 	
	UW CSE Tapia Conference Scholarship	Jun 2019
	<ul style="list-style-type: none"> • Received travel, registration and lodging funding to attend Tapia conference from Allen School 	
	Ronald E. McNair Scholar	May 2019
	<ul style="list-style-type: none"> • Selected for demonstrating strong academic potential for graduate education 	
	UW OMA&D Exemplary Mentor Award	Mar 2018
	<ul style="list-style-type: none"> • Received for outstanding contribution as a peer mentor in the MPFS program 	
PROFESSIONAL AFFILIATIONS	Society of Women Engineers (SWE), UW Seattle, WA	
	<ul style="list-style-type: none"> ▪ Member 	Jul 2020 – Present
	Science & Engineering Business Association (SEBA), UW Seattle, WA	
	<ul style="list-style-type: none"> ▪ Member 	Jun 2020 – Present
ADDITIONAL WORK EXPERIENCES	Barnes & Noble, Inc., Seattle, WA	
	<ul style="list-style-type: none"> ▪ Customer Service Associate <ul style="list-style-type: none"> • Collaborated in staff team to finalize weekly store strategies and sales targets • Assessed sales activity, transactions/reservations, and organized product supplies 	Sep 2017 – Mar 2018
	PCC Natural Markets, Seattle, WA	

- Courtesy Clerk
 - Assisted customers in product selection, bagged items and helped in carrying out
 - Packaged and organized product supplies collaborating with 25+ store teammates
 - Coordinated early-hours and after-work cleanliness and safety check

Feb 2017 – Apr 2017

[Last updated on 2021-04-06]