

KALYANI MARATHE

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EDUCATION

University of Washington, Seattle
Ph.D. in ELECTRICAL AND COMPUTER ENGINEERING
Advisor: Dr. Linda Shapiro
MAR 2021 - (ongoing)

University of Washington, Seattle
M.S. in ELECTRICAL AND COMPUTER ENGINEERING
SEP 2019 - MAR 2021

College of Engineering, Pune
B.Tech in ELECTRONICS AND TELECOMMUNICATION ENGINEERING
GPA: 8.87/10 (Rank: 6/87)
JUN 2013 - JUN 2017

RESEARCH & INDUSTRY EXPERIENCE

Research Assistant
PAUL G. ALLEN SCHOOL OF COMPUTER SCIENCE & ENGINEERING, SEATTLE
JUN 2020 - (ongoing)

- Currently working on a 3D scene understanding problem to facilitate robotic manipulation of the AMAZON packages. (in collaboration with AMAZON ROBOTICS AI)
- Developed a ML-based tool to assist radiologists in deciding which patients should be called for a breast biopsy. [1] (in collaboration with DAVID GEFFEN SCHOOL OF MEDICINE, UCLA)
- Assessed the quality and the challenges of the “Contextual Emotion Learning Dataset”. [2]

Associate Software Engineer
IDEAS REVENUE SOLUTIONS, A SAS COMPANY, PUNE
JUL 2017 - AUG 2019

- Designed the IDEaS Revenue Management Forum website - An event registration app for 100+ participants.
- Revamped the Export-to-Excel framework of the IDEAS CONFIGURATION MANAGEMENT TOOL.
- Automated the synchronization of 14,000 clients of the IDEAS REVENUE MANAGEMENT SYSTEM and the IDEAS LEARNING MANAGEMENT SYSTEM

Summer Research Fellow
INDIAN INSTITUTE OF TECHNOLOGY, KANPUR
MAY 2016 - JUL 2016

- Developed an ONLINE VOTING SYSTEM for conducting SURVEYS and POLLS in organizations

PUBLICATIONS

1. **Marathe, K.**, Marasinou, C., Li, B., Nakhaei, N., Li, B., Elmore, J.G., Shapiro, L. and Hsu, W., “Automated quantitative assessment of amorphous calcifications: Towards improved malignancy risk stratification.”, Computers in Biology and Medicine, 2022 [\[PDF\]](#) [\[slides\]](#)
2. Shukla, J., Gupta, P., Bera, A., Sarkar, A., Goel, P., Butta, S., Gupta, A.K., Sanyal, S., Neog, D.R., Bhuyan, M.K. and **Marathe, K.**, “Contextual emotion learning challenge.”, IEEE International Conference on Automatic Face and Gesture Recognition (IEEE FG), 2021 [\[PDF\]](#)

TEACHING EXPERIENCE

Teaching Assistant PAUL G. ALLEN SCHOOL OF COMPUTER SCIENCE & ENGINEERING, SEATTLE CSEP 576: Computer Vision [link]	FALL 2021
Teaching Assistant PAUL G. ALLEN SCHOOL OF COMPUTER SCIENCE & ENGINEERING, SEATTLE CSE 412: Introduction to Data Visualization [link]	WINTER 2021, SPRING 2021
Teaching Assistant PAUL G. ALLEN SCHOOL OF COMPUTER SCIENCE & ENGINEERING, SEATTLE CSE 374: Intermediate Programming Concepts & Tools [link]	FALL 2020

AWARDS

The IDEaS “Way To Go” Award IDEAS, A SAS COMPANY, PUNE	OCT 2018
Summer Research Fellowship Award IASC (BENGALURU), INSA (NEW DELHI), NASJ (ALLAHABAD)	MAR 2016
Statewise top 1% in the NSEJS Examination (Top 300 in India to appear for the second stage of the International Junior Science Olympiad) INDIAN ASSOCIATION OF PHYSICS TEACHERS, KANPUR	2010

SKILLS

Programming Languages:	Python, Java, C, C++
Machine Learning:	PyTorch, Tensorflow, Scikit-Learn