Kalyani Marathe

Research Assistant
University of Washington
Seattle, WA 98195

Office: 490, Paul G. Allen Center
Email: kmarathe@cs.washington.edu
Homepage: kalyani7195.github.io

Education

Ph.D. at University of Washington — Mar 2021 - (ongoing)
Department of Electrical and Computer Engineering
Advisors: Prof. Linda Shapiro and Prof. Ranjay Krishna

M.S. at University of Washington — Sep 2019 - Mar 2021
Courses: Computer Vision, Statistical Learning, Deep Learning, AI
Department of Electrical and Computer Engineering, GPA: 3.92/4

B.Tech. at College of Engineering, Pune — Jun 2013 - Jun 2017
Electronics and Telecommunication Engineering,
GPA: 8.87/10 (Rank: 6/87)

Research & Industry Experience

Research Assistant — Jun 2020 - (ongoing)
Paul G. Allen School of Computer Science & Engineering, Seattle

- Self supervised representation learning for dense prediction tasks (as part of the UW-Amazon Sciencehub) [1]
- Quantitative analysis of mammograms to help avoid unnecessary breast biopsies (in collaboration with David Geffen School of Medicine, UCLA) [2]

Associate Software Engineer — Jul 2017 - Aug 2019
IDeaS Revenue Solutions, A SAS Company, Pune

Summer Research Fellow — May 2016 - Jul 2016
Department of CSE, Indian Institute of Technology, Kanpur

Selected Publications

1. **"MIMIC: Masked Image Modeling with Image Correspondences" Marathe, K.**, Bigverdi, M., Khan, N., Kundu, T., Kembhavi, A., Shapiro, L. G., Krishna, R., (Preprint) [PDF] [Code]
2. **"Automated quantitative assessment of amorphous calcifications: Towards improved malignancy risk stratification."**, **Marathe, K.**, Marasinou, C., Li, B., Nakhaei, N., Li, B., Elmore, J.G., Shapiro, L. and Hsu, W., Computers in Biology and Medicine, 2022 [PDF] [slides]

Teaching Experience

TA, **CSEP 576: Computer Vision** [link] — Fall 2021
Paul G. Allen School of Computer Science & Engineering, Seattle

TA, **CSE 412: Introduction to Data Visualization** [link] — Winter 2021, Spring 2021
Paul G. Allen School of Computer Science & Engineering, Seattle

TA, **CSE 374: Intermediate Programming Concepts & Tools** [link] — Fall 2020
Paul G. Allen School of Computer Science & Engineering, Seattle

University Service

PhD Student Representative, Graduate Programs Review Committee — Fall 2022
Worked with professors and staff members to discuss policy improvements
Department of Electrical & Computer Engineering, UW Seattle

Mentor, Graduate Application Support Program (GASP) — Fall 2022
Provided feedback to applicants from underserved communities
Department of Electrical & Computer Engineering, UW Seattle

Member, MS Admissions Triage Committee — Fall 2020
Evaluated application materials of 20+ students interested in pursuing Masters in Computer Vision and Machine Learning
Department of Electrical & Computer Engineering, UW Seattle

Academic Service

Reviewer, SynData4CV CVPR 2024 Workshop — Apr 2024

Awards

The IDeaS "Way To Go" Award (Leadership and Team Spirit category) — Oct 2018
IDeaS, A SAS Company, Pune

Summer Research Fellowship Award — Mar 2016
IASc (Bengaluru), INSA (New Delhi), NASJ (Allahabad)

Statewise top 1% in the NSEJS Examination — Dec 2010
Top 300 in India to appear for the second stage of the International Junior Science Olympiad
Indian Association of Physics Teachers, Kanpur

Skills

Programming Languages:	Python, Java, Groovy, C, C++, LaTeX
Machine Learning:	PyTorch, Scikit-Learn, Numpy, Scipy