

Purva Tendulkar

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RESEARCH INTERESTS	<i>Deep Learning, Vision and Language, Reinforcement Learning Creative AI, Music Information Retrieval</i>	
EDUCATION	School of Interactive Computing, Georgia Tech <i>M.S. in Computer Science</i> Advised by Prof. Devi Parikh CGPA : 4.0/4.0	2018-Present
	College of Engineering Pune (COEP) <i>B.Tech. in Computer Science</i> CGPA : 9.14/10.0	2014-2018
PUBLICATIONS	Feel The Music: Automatically Generating A Dance For An Input Song <i>Pre-print (under review)</i> <u>P. Tendulkar</u> , A. Das, A. Kembhavi, D. Parikh	
	SQuINTing at VQA Models: Interrogating VQA Models with Sub-Questions <i>IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2020 (Oral)</i> R. Selvaraju, <u>P. Tendulkar</u> , D. Parikh, E. Horvitz, M. Ribeiro, B. Nushi, E. Kamar	
	Trick or TReAT: Thematic Reinforcement for Artistic Typography <i>International Conference on Computational Creativity (ICCC) 2019 (Oral)</i> <u>P. Tendulkar</u> , K. Krishna, R. Selvaraju, D. Parikh	
AWARDS & RECOGNITION	Finalist: Microsoft AI Residency Program & Facebook AI Residency Program (2020) (cancelled due to COVID-19) Winner: Best Presentation Award at ICCV'19 Recipient: Pratibha Eaton Excellence Award for women engineering students (2017) Finalist: Computer and Science Quiz organized by Computer Society of India (2011) Recipient: Maharashtra Talent Search Award (2009)	
TECHNICAL SKILLS	Programming languages: Python (with PyTorch), C/C++ Web development: Django, HTML, JavaScript, MySQL	
RELEVANT COURSES	Graduate Coursework <ul style="list-style-type: none">• Deep Learning • Machine Learning • Natural Language Processing• Computer Vision • Introduction to Graduate Algorithms	
	Selected Undergraduate Coursework <ul style="list-style-type: none">• Natural Language Processing • Linear Algebra• Experimental Design and Data Analysis • Data Structures• Design and Analysis of Algorithms • Discrete Structures and Graph Theory• Computer Algorithms in Signal Processing • Advanced Unix Programming	
EXPERIENCE	AiBee Corp, Palo Alto <i>Research Intern, mentored by Chunhui Gu and Juan Carlos Nieves</i>	May 2019-Aug 2019

Worked on using recurrent neural networks to analyse trajectories of people in a shopping mall in order to detect events and perform intentions classification.

Visual Intelligence Lab, Georgia Tech

Aug 2018-ongoing

Research Assistant, mentored by Prof. Devi Parikh

Currently working on developing personable AI that humans can like, trust, teach and learn from – including creative AI, vision & language and reinforcement learning.

CPS Research Group, NTU

May 2017-Aug 2017

Research Assistant, mentored by Prof. Arvind Easwaran

Worked on analysing notorious security attacks on Cyber Physical Systems (CPSs) and performed extensive vulnerability analysis in order to improve system design.

IIT, Bombay

May 2016-Aug 2016

Software Developer, mentored by Prof. Varsha Apte

Worked on EvalPro, a Django webapp being used in the CSE Department of IIT Bombay for handling computer related tests, assignments and automated evaluation.

**SELECTED
PROJECTS**

Blind Image Dehazing

Mentored by Yuval Bahat and Kalpesh Krishna

Implemented the ICCP 2016 paper Blind Image Dehazing Using Internal Patch Recurrence. Improved the method for selecting pairs of image patches for blind dehazing as compared to the original brute force method. Achieved approximately 20x better speed for optimization in PyTorch as compared to the original MATLAB implementation.

Punny Captions

Implemented the NAACL 2018 paper Punny Captions : Witty Wordplay in Image Descriptions which generates punny captions for a boring image.

REFERENCES

- Prof. Devi Parikh, Georgia Tech (email: parikh@gatech.edu)
- Dr. Aniruddha Kembhavi, AI2 (email: anik@allenai.org)
- Dr. Chunhui Gu, AiBee Corp. (email: chgu@aibee.com)
- Dr. Juan Carlos Niebles, Stanford University (email: jniebles@cs.stanford.edu)
- Prof. Arvind Easwaran, NTU (email: arvinde@ntu.edu.sg)