Purva Tendulkar

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Education

Columbia University, *New York, NY* — 2021 – Present
PhD, Computer Science
Advisor: Carl Vondrick

Georgia Institute of Technology, *Atlanta, GA* — 2018 – 2020
M.S, Computer Science
Advisor: Devi Parikh

College of Engineering Pune, *Maharashtra, India* — 2014 – 2018
B.Tech, Computer Science

Awards

Sponsored attendee at, *NSF-funded CRA Graduate Cohort for Women* — 2021
Columbia University Ph.D. Presidential Fellowship — 2021-25
Best Presentation Award, *at ICCC 2019* — 2019
Pratibha Eaton Excellence Award for Women — 2017

Publications

Conference Papers

7. **Revealing Occlusions with 4D Neural Fields**
   Basile Van Hoorick, <u>Purva Tendulkar</u>, Dídac Surís, Dennis Park, Simon Stent, Carl Vondrick
   Conference on Computer Vision and Pattern Recognition (CVPR) 2022, **Oral (top-4%)**

6. **SOrT-ing VQA Models: Contrastive Gradient Learning for Improved Consistency**
   Sameer Dharur, <u>Purva Tendulkar</u>, Dhruv Batra, Devi Parikh, Ramprasaath R. Selvaraju
   Conference of the North American Chapter of the Association for Computational Linguistics (NAACL) 2021

5. **Feel The Music: Automatically Generating A Dance For An Input Song**
   <u>Purva Tendulkar</u>, Abhishek Das, Aniruddha Kembhavi, Devi Parikh
   International Conference on Computational Creativity (ICCC) 2020, **Oral**

4. **SQuINTing at VQA Models: Interrogating VQA Models with Sub-Questions**
   Ramprasaath R. Selvaraju, <u>Purva Tendulkar</u>, Devi Parikh, Eric Horvitz, Marco Tulio Ribeiro, Besmira Nushi, Ece Kamar
   Conference on Computer Vision and Pattern Recognition (CVPR) 2020, **Oral (top-5.7%)**

3. **Trick or TReAT: Thematic Reinforcement for Artistic Typography**
   <u>Purva Tendulkar</u>, Kalpesh Krishna, Ramprasaath R. Selvaraju, Devi Parikh
   International Conference on Computational Creativity (ICCC) 2019, **Oral - Best Presentation Award**

Workshop

2. **SOrT-ing VQA Models: Contrastive Gradient Learning for Improved Consistency**
   Sameer Dharur, <u>Purva Tendulkar</u>, Dhruv Batra, Devi Parikh, Ramprasaath R. Selvaraju
   Workshop on Interpretable Inductive Biases and Physically Structured Learning at NeurIPS 2020

Preprints

1. **Landscape Learning for Neural Network Inversion**
   Ruoshi Liu, Chengzhi Mao, <u>Purva Tendulkar</u>, Hao Wang, Carl Vondrick

Work Experience

Columbia University, *Graduate Research Assistant*   2021-present
with Carl Vondrick

University of California San Diego, *Visiting Researcher*   Fall '20,
with Xiaolong Wang   Spring'21

Georgia Tech, *Graduate Research Assistant*   2018-2020
with Devi Parikh

AiBee, *Research Intern*   Summer '19
with Chunhui Wu, Juan Carlos Niebles, Silvio Savarese

Nanyang Technological University, *Research Intern*   Summer '17
with Arvind Easwaran

Indian Institute of Technology (IIT), Bombay, *Software Engineer Intern*   Summer '16
with Varsha Apte

Selected Press Coverage

Facebooks new choreography AI is a dancing queen
by Andrew Tarantola. Engadget. June 2020

AI like the way you move: How Facebook researchers built an inspirational dancing machine
by Tech at Meta. August 2020

Teaching Experience

Columbia CS 6998: Representation Learning   Fall '21, '22

Talks

Feel The Music: Automatically Generating A Dance For An Input Song   2020
ICCC'20 Oral Talk

Trick or TReAT: Thematic Reinforcement for Artistic Typography   2019
ICCC'19 Oral Talk

Professional Activities

Reviewing

International Conference on Computer Vision (ICCV)   2021
European Conference on Computer Vision (ECCV)   2022

Advising

Scott Geng, Undergraduate Student, Columbia   2022 - Present
Five females, Undergraduate Students, Barnard (BEARS program)   Spring 2022
Three females, Undergraduate Students, Columbia (WISC program)   Spring 2022
Macarena Peralta, Undergraduate Student, UMich (Amazon SURE program)   Summer 2022

Extracurricular Activities

○ Co-organizing a bi-weekly research seminar series "Vision, Interaction, Graphics & Robotics (VIGR)" at Columbia.

○ Received 3rd prize in the CS department for my undergraduate thesis on speeding up image dehazing algorithms.

○ Completed Sangeet Visharad or Bachelor of Arts (BA) in Indian (Hindustani) Classical Music in harmonium instrument.

○ Completed Arangetram in an Indian Classical Dance form called Bharatnatyam.

○ Competed at the final round of the National British Parliamentary Debate Competition organized by Symbiosis Law School (SLS) in 2016.