SHERYL PAUL

PhD Candidate, Computer Science

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EDUCATION

PhD Computer Science — 2019 – 2026[1]
University of Southern California — **3.87/4.00**

- **Areas of Interest**: Game Theory, Control Theory, Multi-Agent systems, Temporal logic, Networked Systems
- **Relevant Coursework**: Theory & Algorithms for Formal Verification, Formal Methods for Robotics, Advanced Algorithms, Network Economics & Games, Computer-Aided Verification

MSc Computer Science — 2018-2019
University of Oxford — **2:1 , 1:1**

- **Dissertation:** The Emergence of Social Norms in Evolutionary Games
- **Relevant Coursework:** Computational Game Theory, Artificial Intelligence, Machine Learning, Advanced Database Systems, Computers in Society

BE Computer Engineering — 2014-18
University of Mumbai — **9.79/10.00**

- **Project:** Heterogeneous Clustering for Universal Recommendation Generation ***(Patent published)***

PROFESSIONAL EXPERIENCE

Teaching Assistant — Spring 2025, Fall 2024
University of Southern California

- **Computer Systems, Autonomous Cyber-physical Systems**

Research Assistant — 2018-19
University of Oxford (Department of Social Policy and Intervention)

Technical Analyst Intern — 2017
Credit Suisse Investment Bank

Technical Intern — 2016-17
Gromor Fintech

Teaching Assistant — 2016-17
University of Mumbai

ONGOING RESEARCH

Dynamics and Control of Information Interventions
Opinion Dynamics, Control Theory, Networked Systems, Sociotechnical Systems

Formal Methods in Multi-Agent Systems
Signal Temporal Logic (STL), STL-GO, Control Synthesis, Multi-Agent Systems

Game-Theoretic Models of Collective Behavior
Evolutionary Game Theory, Population Dynamics, Transportation and Mobility Systems

RESEARCH/PUBLICATIONS

Multi-Agent Planning with Spatio-Temporal and Topological Constraints
**** Under Submission**
S. Paul, V. Kudalkar, A. Balakrishnan, L. Lindemann, A. Speranzon, J. Deshmukh

ABM-SIRTEM: A Hybrid Agent-Based and Epidemiological Model for Pandemic Response
****Under submission**
S. Paul, S. J. Williams, P. K. Biswas, G. Pedrielli, J. Deshmukh

Online Control of Opinion Dynamics
ACC 2026
S. Paul, L. C. Juarez, J. Deshmukh, K. Savla

Monitoring Spatially Distributed Cyber-Physical Systems with Alternating Finite Automata
HSCC 2025- (Best Paper Winner)
A. Balakrishnan, **S. Paul**, L. Nenzi, S. Silvetti, J. Deshmukh

Evolutionary Adaptation of Policies for Environmental Shifts
European Conference on Artificial Intelligence, 2024
S. Paul, J. Deshmukh

Multi-Agent Pathfinding for Timed Tasks using Evolutionary Techniques
QEST-FORMATS, 2024
S. Paul, Anand Balakrishnan, Xin Qin, J. Deshmukh

Systematic Translation from Natural Language Robot Task Descriptions to STL
AISoLA, 2024
S. Mohammadinejad, **S. Paul**, Y, Xia, V. Kudulkar J. Deshmukh

Detection of Breast Cancer from Mammograms using a Hybrid Approach of Deep Learning and Linear Classification
ICSET (IEEE), 2018
S. Paul, D. Gala, S. Agrawal, R. Rangnekar, D. Kalbande

MISCELLANEOUS

- **Awarded full tuition scholarship for MSc at Oxford by the British Council**
- **Reviewer**: RV, L4DC, VMCAI, AAAI, ICCPS, CAV, IEEE-TASE, ACC
- Presented posters at GC Women in CS Conference ('23), USC-AAI ('23, '24, '25)
- NASA Formal Methods Volunteer (2022)
- Vocal Arts at USC Thornton (Grade A, 4 semesters)
- Volunteer at Union Rescue Missions, School on Wheels, Dream Center LA

[1] *Includes health leave of absence*