

# Aniruddh Gopinath Puranic

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## EDUCATION

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### University of Southern California

*PhD, Computer Science*

Advisor: Dr. Jyotirmoy V. Deshmukh, CPS-VIDA Group

Los Angeles, CA, USA

*August 2019–Present*

### University of Southern California

*M.S., Computer Science (Intelligent Robotics)*

Los Angeles, CA, USA

*December 2018*

### B.M.S. College of Engineering

*B.E., Computer Science and Engineering*

Bangalore, India

*June 2016*

## EXPERIENCE

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### Toyota North America R&D - InfoTech Labs

*Researcher (Intelligent Connected Systems)*

o Formerly: Toyota InfoTechnology Center USA, Inc. (Systems and Software Division)

o Supervisor: Dr. Baekgyu Kim

o Data management via edge computing for connected vehicles.

Mountain View, CA, USA

*January 2019–July 2019*

### USC Keck School of Medicine

*Research Volunteer at Center for Robotic Simulation and Education*

o Advisors: Dr. Andrew Hung (Norris Comprehensive Cancer Center) and Dr. Jyotirmoy V. Deshmukh

o Developed a tool to estimate the deviation of surgical needle entry/exit points in dry-lab from images obtained from the Da Vinci surgical robot.

Los Angeles, CA, USA

*June 2018–December 2018*

### SMERGERS

*Software Engineer (Intern)*

o Developed a user interaction system using Python/Django framework for the initial prototype of 'Sector Watch

Feature' which would provide a lot of insight about the businesses in a sector to the users in real time.

Bangalore, India

*February 2015–May 2015*

## PUBLICATIONS

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1. **Aniruddh G. Puranic**, Jyotirmoy. V. Deshmukh and Stefanos Nikolaidis, "Learning from Demonstrations using Signal Temporal Logic", *Conference on Robot Learning (CoRL) 2020*.
2. Sara Mohammadinejad, Jyotirmoy. V. Deshmukh and **Aniruddh G. Puranic**, "Mining Environment Assumptions for Cyber-Physical System Models", *ACM/IEEE 11th International Conference on Cyber-Physical Systems (ICCPS) 2020*.
3. Sara Mohammadinejad, Jyotirmoy V. Deshmukh, **Aniruddh G. Puranic**, Marcell Vazquez-Chanlatte, and Alexandre Donzé, "Interpretable classification of time-series data using efficient enumerative techniques", *23rd International Conference on Hybrid Systems: Computation and Control (HSCC) 2020*.
4. **Aniruddh Puranic**, Jian Chen, Jessica Nguyen, Jyotirmoy Deshmukh, and Andrew Hung, "Poster: Automated Evaluation of Instrument Force Sensitivity During Robotic Suturing Utilizing Vision-Based Machine Learning", *Journal of Urology, 2019*.
5. Anand Balakrishnan, **Aniruddh G. Puranic**, Xin Qin, Adel Dokhanchi, Jyotirmoy V. Deshmukh, Heni Ben Amor, and Georgios Fainekos, "Specifying and Evaluating Quality Metrics for Vision-Based Perception Systems", *IEEE Proceedings of Design, Automation and Test in Europe (DATE) 2019*.
6. **Aniruddh Puranic**, Deepak K. T., and Umadevi V., "Vehicle number plate recognition system: A literature

review and implementation using template matching", *International Journal of Computer Applications (IJCA)* 2016.

## TEACHING

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**University of Southern California**

**Los Angeles, CA, USA**

*Teaching Assistant*

o Autonomous Cyber-Physical Systems (CSCI 513) by Prof. Jyotirmoy V. Deshmukh

*Fall 2020*

**University of Southern California**

**Los Angeles, CA, USA**

*Course Producer*

o Robotics (CSCI 545) by Prof. Stefan Schaal

*Spring 2018*

o Introduction to Robotics (CSCI 445L) by Prof. Nora Ayanian

*Fall 2018*

## CO-CURRICULAR ACTIVITIES

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o IEEE Student Member

o Volunteer for (virtual) 32nd International Conference on Computer-Aided Verification (CAV) 2020

o Reviewer

1. IEEE Transactions on Intelligent Transportation Systems (T-ITS) 2020

2. IEEE Transactions on Computers (IEEE Trans. Comput.) 2020

o Sub-reviewer

1. IEEE Conference on Decision and Control (CDC) 2020

2. International Conference on Computer-Aided Verification (CAV) 2020

3. Design Automation Conference (DAC) 2020

4. International Conference on Cyber-Physical Systems (ICCPS) 2019

5. IEEE International Conference on Cloud Computing (IEEE CLOUD) 2019

o Attendee of WESTEC 2017 conference, Los Angeles

o Attendee of IEEE Vehicular Networking Conference 2019, Los Angeles

## EXTRA-CURRICULAR ACTIVITIES

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**Tennis:**

o **Ranked 156** in ASIA (ASIAN JUNIORS) in U-14 category in 2008.

o Represented KARNATAKA STATE TEAM at the NATIONAL SCHOOL GAMES held during 2007 and 2008 in U-14 and U-17 categories and won **SILVER MEDAL** in 2008.

o Represented BANGALORE NORTH DISTRICT between 2007 and 2009 in U-14 and U-17 categories and have been

**WINNERS / RUNNERS-UP.**