

# Rishav Chourasia

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 Cubicle 4, COM2 B1-02, School of Computing, NUS, Singapore


## Education

- Aug 2019 – Jun 2023 (expected) **Ph.D. Candidate** in Computer Science, *National University of Singapore* (NUS), Singapore  
Advisor : Dr. Reza Shokri, Dr. Bryan Kian Hsiang Low  
GPA : 4.67/5.0
- July 2014 – June 2018 **Bachelor of Technology**, *Indian Institute of Technology* (IIT), Guwahati  
Major in Computer Science & Engineering  
GPA : 9.26/10.0

## Publications

- > **R.Chourasia**, A.Singla, *Unifying Ensemble methods for Q-learning via Social Choice Theory*. NeurIPS LIRE Workshop, 2019.
- > **R.Chourasia**, *Optimal Swarm RL : An Improved Deep Exploration strategy*(preprint).
- > **R.Chourasia**, V.Saxena, N.Yadala, F.C-H.Rhee, *Visualization of Two-dimensional IT2 Fuzzy Membership Functions using General Type-2 Fuzzy Membership Functions*. IFSA, 2017.
- > V.Saxena, N.Yadala, **R.Chourasia**, F.C-H.Rhee, *Type Reduction Techniques for Two-dimensional IT2 Fuzzy sets*. FUZZ-IEEE, 2017.

## Experiences

- Aug 2019 | May 2019 **Google Summer of Code student developer, Chainer, NumFOCUS**  
> Contributed to an experimental Compiler that converts *Chainer* models to a standard Intermediate Representation called *Open Neural Network Exchange* (ONNX).  
> Added support for handling several challenging Python syntax such as break, continue, return, with and lambda as well as data-types like dictionary.  
> Improved compiler to handle fairly complicated models such as Resnet50 and LSTMs.  
>  **Chainer-Compiler**  
Chainer ML framework Python Compiler Open Neural Network Exchange
- Feb 2019 | Sep 2018 **Research Internship, Max Planck Institute for Software Systems, Saarbrücken, Germany**  
> Under supervision of Dr. Adish Singla, head of Machine Teaching group.  
> Studied properties of committee voting rules and their manifestation when applied to ensemble based Reinforcement learning.  
Social Choice Theory Reinforcement Learning Multi-winner Voting rules
- Jul 2017 | May 2017 **Software Development Internship, Amazon India, Bangalore, India**  
> Developed platform for tracking and modifying configuration changes in fraud check pipelines.  
Fraud Detection Software Development
- Jul 2016 | May 2016 **Research Internship, Hanyang University,ERICA, South Korea**  
> Under supervision of Dr. Frank Rhee, head of Computational Vision and Fuzzy Systems lab.  
> Worked on efficient type-reduction techniques for higher order multidimensional fuzzy sets.  
Matlab Fuzzy Logic



## Honors & Awards


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| 2019 | <b>NUS Research Scholarship for Ph.D</b>         | School of Computing, National University of Singapore. |
| 2018 | <b>Research Fellowship (3 months)</b>            | Max Planck Institute for Software Systems.             |
| 2016 | <b>Summer Research Fellowship Program (SRFP)</b> | Indian Academy of Sciences.                            |
| 2015 | <b>Department Topper (offered branch change)</b> | Indian Institute of Technology, Guwahati.              |

## Skills

- Languages :** Python, C/C++, MATLAB, ~~TeX~~ Bash, Lua, Java.
- ML Frameworks :** Chainer, PyTorch, Tensorflow, Torch7, MXNet, Scikit-learn.
- Misc. Tools :** Git, ONNX, Gazebo, ROS.

## Reference

Dr. Reza Shokri, *Assistant Professor*  
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Dr. Bryan Kian Hsiang Low, *Assistant professor*  
Computer Science Department, NUS  
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