

SIDDHARTH VERMA

(647) 607 0862 | 414 – 20 Tubman Avenue, Toronto | siddharth-verma.com | siddharth.verma60@gmail.com

EDUCATION

Netaji Subhas Institute of Technology (NSIT), University of Delhi, India **2015 - 2019**
Bachelor of Engineering (Honors) in Computer Engineering

- GPA: 8.6/10
- Honors: First-class with Distinction, IEEE scholarship recipient

RESEARCH AND WORK EXPERIENCE

Expedia Group, Gurgaon, India **July 2019 - present**
Software Engineer

- Developing scalable systems for performing financial transactions on the e-commerce platform

University of Pennsylvania, USA **December 2017 – June 2019**
Research Assistant

Co-evolving genetic-programming (GP) trees with rules in Learning Classifier Systems (LCS)

- Developed Python code from scratch for evolving GP trees in LCS, a supervised ML algorithm
- Enhanced the performance of GP tree operations in terms of execution speed and tree representation
- Research article under review at EvoStar, 2020.

GP Trees – Python Library

- Created a python library for all the GP trees related operations that can be used directly for any GP application

Supervisor: Dr. Ryan Urbanowicz, Assistant Professor, Perelman School of Medicine, University of Pennsylvania

Expedia Group, Gurgaon, India **June 2018 - July 2018**
Software Engineer Intern

Stored Value Bank Adaptor

- Devised a framework to communicate with bank partners for making transactions using Enterprise Service Bus.
- Reduced time of on-boarding the adaptors from three months to three days.

Netaji Subhas Institute of Technology, India **January 2017 – May 2018**
Research Assistant

Solving training issues in Generative Adversarial Networks (GANs)

- Research article under review at WACV, 2020.

Evolving game playing strategies using eXtended Classifier Systems (XCS)

- Proposed an approach of playing game of Othello using XCS, a branch of LCS

PUBLICATION

S. Jain*, S. Verma*, S. Kumar* and S. Aggarwal, "An Evolutionary Learning Approach to Play Othello Using XCS" 2018 IEEE Congress on Evolutionary Computation (CEC), Rio de Janeiro, Brazil, 2018, pp. 1-8. (WCCI 8-13 July, 2018) [*equal contribution] doi: [10.1109/CEC.2018.8477644](https://doi.org/10.1109/CEC.2018.8477644)

INTERNATIONAL CONFERENCE AND EXTRA CURRICULAR ACTIVITY

World Congress of Computational Intelligence (WCCI), Rio De Janeiro, Brazil **8-9 July, 2018**
Speaker

- Presented research ideas on evolutionary algorithms and reinforcement learning at the conference.

Indian Institute of Science (IISc), Bengaluru, India **July 2017**
Summer School

- Participated in the lectures by research professionals on latest research in artificial intelligence.

RELEVANT SKILLS

Computer Languages: Java, Python, C++, Julia

Libraries and Tools: TensorFlow, DEAP, NumPy, Spring, LaTeX, Spring

Technical Skills: Data Structures, Algorithms, Deep Learning, Reinforcement Learning, Genetic Programming

Online courses: Deep learning specialization - deeplearning.ai, Reinforcement learning - Deep Mind