

SIDDHARTH VERMA

(+91)-8447252891 | New Delhi, India | 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 – December 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 banks on Expedia's platform from three months to three days.

Netaji Subhas Institute of Technology, India **January 2016 – May 2018**
Research Assistant

Solving training issues in Generative Adversarial Networks (GANs)

- Extracted the feature representations from autoencoder and reused them in GAN to mitigate modal collapse.
- Research article under review at WACV, 2020.

Evolving game playing strategies using eXtended Classifier Systems (XCS)

- Proposed an approach to play Othello using XCS, a reinforcement learning LCS framework.

PUBLICATION

S. Jain*, S. Verma*, S. Kumar* and S. Aggarwal, "An Evolutionary Learning Approach to Play Othello Using XCS" *IEEE Congress on Evolutionary Computation (CEC)*, Rio de Janeiro, Brazil, 2018, pp. 1-8. [*equal contribution]

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

- Selected in a small cohort to interact with research professionals on latest research in artificial intelligence.

SKILLS AND INTERESTS

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

Libraries and Tools: TensorFlow, Keras, PyTorch, DEAP, NumPy, Spring, SQL, Shell scripting, LaTeX

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

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

Interests: French harp player, Currency Connoisseur (collection from 50+ countries), Swimming (8+ years of training)