

## EDUCATION

**Netaji Subhas Institute of Technology (NSIT), University of Delhi, India** **2015 - 2019**

- Bachelor of Engineering (B.E) in Computer Engineering. Aggregate: 78.2%
- Honors: First-class with Distinction, IEEE scholarship recipient

## RESEARCH AND WORK EXPERIENCE

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

- Developing solutions for performing financial transactions on the e-commerce platform

**Research Assistant** **University of Pennsylvania, USA** **December 2017 - present**

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

- Developed Python code from scratch for imbedding GP-Trees in the ExSTraCS framework, a supervised LCS
- Enhanced the performance of GP tree operations in terms of execution speed and tree representation

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

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

Stored Value Bank Adaptor

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

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

Solving training issues in Generative Adversarial Networks (GANs)

- Research article under submission at a conference.

Evolving game playing strategies using eXtended Classifier Systems (XCS)

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

*Supervisor: Dr. Swati Aggarwal*, Assistant Professor in Computer Engineering Department, NSIT

## 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

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

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

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

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