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SIDDHARTH VERMA

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EDUCATION

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

- Bachelor of Engineering (B.E.) in Computer Engineering. Aggregate 77.9%
- Relevant Coursework: Operating Systems, Database Management, Data Structures, Programming Languages, Computer Architecture, Discrete Mathematics and Algorithms.

Mata Jai Kaur Public School, CBSE, Delhi, India **March 2013 – March 2015**

- Class X: CGPA 10 | Class XII: Aggregate 96.6%

WORK EXPERIENCE

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

Stored Value Bank Adaptor

- Devised a framework to perform points transaction with banks using Enterprise Service Bus architecture.
- Developed a UI replacing the method of coding in Java with drag & drop facility for making transactions.
- Reduced time of on-boarding the adaptors from three months to three days.

Research Intern **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

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

Guiding training of Generative Adversarial Networks (GANs): Deep Learning

- Improved the training of GANs and increased the quality and diversity of generated images.
- Research article under submission at British Machine Vision Conference 2019.

Evolution of game playing strategies in Othello using eXtended Classifier Systems (XCS)

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

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

INTERNATIONAL CONFERENCE AND EXTRA CURRICULAR ACTIVITY

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

- Presented two research papers: “An Evolutionary Learning Approach to Play Othello Using XCS” and “Augmented Gene Expression Programming (AGEP)” at the conference.
- Received an $800 grant from IEEE as an undergraduate speaker and having the major contribution in the paper.

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

- Undertook the courses by the research professionals and industry experts on cutting-edge research work in artificial intelligence, machine learning and key areas of computer science.

RELEVANT SKILLS

- **Computer Languages**: Java, Python, C++, Julia
- **Computer Libraries and Tools**: Deep Learning (Deeplearning.ai specialization), SciPy, scikit-learn, Pandas, DEAP, Numpy, Jupyter Notebook, Eclipse, LaTeX, Enterprise Service Bus(ESB), Mulesoft, Maven, Tomcat
- **Technical Skills**: Data Structures, Algorithms, Reinforcement Learning, Genetic Programming, Supervised Learning