Aviral **Janveja**

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Direction

My Research Interests include Mathematical Logic, Algorithms, Complexity theory, Quantum Computing and Artificial Intelligence. I like combining research with innovation to help solve challenging problems.

As Prof. Richard Feynman put it beautifully, "The *worthwhile* problems are the ones you can really solve or help solve, the ones you can really contribute something to."

Education

University of Paderborn   2018–Present

Master of Science in Computer Science.

SRM University   2012–16

Bachelor of Technology in Information Technology.
Thesis: Design and Implementation of heap data structure in A*
algorithm for path finding in computer games.

J.H.Ambani School   2009–12

CBSE Senior School: CGPA = 9.07/10 (German Equivalent - 1.3)
CBSE Secondary School: CGPA = 10/10 (German Equivalent - 1.0)

Research

University Seminar: Machine Learning   2019–Present

Preparing a Seminar Talk on the paper "A Semantic Loss Function for Deep Learning with Symbolic Knowledge" from ICML-2018. To be given to prof. Eyke Hllermeier in the Intelligent Systems & Machine Learning department, University of Paderborn.

Projects

University Project-Group: NICE-IDEA   2019–Present

- We develop an educational application for school children based on 'Pentomino' logic puzzle. We made use of Godot game-engine, utilizing its own optimized GDScript language.

- We also perform inter-disciplinary research on learning behaviors, human computer interaction techniques and analysis of eye-tracking data.

Pocket/Perceptron Algorithm for Hand-Written Character
Recognition   2019–Present

- Implementing the Pocket algorithm on MNIST data-set for hand-written character classification.

- Using Pocket strategy to enable classification through Perceptrons over linearly inseparable data.

Employment

BYJU's The Learning App **2016–17**

Business Development Associate

- Worked on Customer-Strategy and Marketing.
- Coordinated Supply-Chain.

Skills

Design and Analysis of Algorithms, Data-Structures, Programming Fundamentals, General Aptitude & Language.

- Java, C++, Python, GD-Script, Command-Line, Git, LaTeX, DBMS-SQL.
- GRE - 313/340 (2017), TOEFL iBT - 101/120 (2017), German A1 - Grade 1.7(88%)(Learning A2).

Achievements

- Central Board of Secondary Education, India Top 1% Student.
- Inspire Internship at National Institute of Technology, Surat, India.
- Robotics Event Organizer at Tech-Fest: Aaruush 2014, SRM University.
- Tennis: National-Level, Football: State-Level, Karate: State-Level.

July 3, 2019.