Keyur H. Patel

CONTACT INFORMATION	Address: EV 13.181	E-mail: iamkeyur96@gmail.com
	Phone: +14385042803	Home: https://iamkeyur.github.io/

RESEARCH INTERESTS

Machine learning, Artificial Intelligence, Analysis and Design of Algorithms

EDUCATION

Concordia University, Montreal, QC.

Master of Science   **Jan 2017 - Present**

- Major: Computer Science
- CGPA: 4.30/4.30

Government Engineering College - Gandhinagar, Gujarat, India.

Bachelor of Engineering   **July 2013 - June 2017**

- Major: Computer Engineering
- CGPA: 9.12/10.00 (Class Rank 1/150)

HONORS AND AWARDS

Was qualified for INSPIRE Scholarship for being among the top 1% of School Board at Class XII level, in the examination held during academic session ending March/April 2013.

Was Selected as Microsoft Student Partner (2014).

Secured **University Rank of 10** in 5th semester among nearly 10000 students.

Currently Ranked 1st in graduating class (among 150 students who enrolled in 2013).

Stood within **top 1%** students of Gujarat in Matriculation examination (2011).

Stood within **top 1%** students of Gujarat in Higher Secondary Examination (2013).

TEACHING EXPERIENCE

Tutorial Leader - Programming Methodology - COEN 243   **Sep 2018 - Dec 2018**

Teaching C++ to nearly 100 Computer Engineering Students.

KEY PROJECTS

Applying Deep Q-Learning To Atari 2600 Games   **July 2016 - June 2017**

Paper published in Nature on 26th February 2015 by a group of researchers from Google DeepMind, presented a novel approach which combines Reinforcement Learning with Deep Neural Network to achieve astonishing results by mastering a diverse range of Atari 2600 games to superhuman level with only the raw pixels and score as inputs.
In this project, We will progressively develop our knowledge to build a state-of-the-art agent, that will be able to learn to solve variety of tasks just by observing the environment.

Twitter Sentiment Analysis   **May 2016 - June 2016**

Classified the sentiments (positive/negative/objective) of tweets by using Naive Bayes Classifier. Planning to use neural networks for sentiment analysis in future.

Email Classification   **March 2016 - April 2016**

Implemented multiclass classification of emails to predefined categories.
Analyzing the effect of implementing NLP techniques to the classical document classification algorithms.

Optimal Character Recognition   **December 2015 - January 2016**

Trained a neural network to identify characters from MNIST database.
Implemented Back Propagation to compute gradients and optimized parameters through gradient descent.

Bookmark Manager REST API   **March 2015 - May 2015**

Implemented a simple RESTful server in Java. It simply collects URL and description.
Provides API for using it with cURL or Node.JS.

Event Management System   **June 2014 - September 2014**

Designed and Implemented a Web based event management system using ASP.Net. Implemented functionality for 3 roles: Guest, User and Admin.

PUBLICATIONS

Keyur Patel, Jagdish Shah, Pinal Patel. 2017. **"Intrusion Detection System using Backpropagation Neural Network."** 1st International Conference on Smart Computing & Informatics (SCI-2017).

Keyur Patel, Ishan Patel, Pinal Patel. 2016. **"Handwritten Character and Digit Recognition Using Artificial Neural Networks."** National Conference Computer Engineering, Information and Communication Technology.

Keyur Patel, Hardik Vala. 2016. **"Applying Deep Q-Learning To Atari 2600 Games"**. National Conference Computer Engineering, Information and Communication Technology. **(Poster)**

KEY COURSES TAKEN

Computer Science : Computer Programming and Utilization, Data Structure, Analysis and design of Algorithms, Database Management Systems, Operating Systems, Computer Networks, Automata Theory and Logic

Mathematics : Calculus, Ordinary Differential Equation, Advanced Engineering Mathematics, Numerical and Statistical Methods for Computer Engineering

Others : Engineering Graphics, Ecology and Environment, Engineering Physics,

TECHNICAL SKILLS

Programming	Python, C#, UNIX Shell Scripting, Java
Web Development	HTML/CSS, JavaScript/AJAX, Django, Flask
Software Packages	NumPy, Tenserflow, LaTeX
Operating Systems	UNIX/Linux, Windows

EXTRA CURRICULARS

Won 3rd prize in "C Dextrous" held on 26-27th March, 2015 as part of "Kal Tech 2015".

Participated in the "Workshop on Cloud Computing" held at Indian Institute of Technology - Gandhinagar and Government Engineering College - Gandhinagar from Sep 01 to 04, 2016.

Participated in the "LaTeXWorkshop" organized as a part of Open Source Summer Camp by Open Source Technologies Club of Gujarat Technological University.

Participated in the "Bootcamp On Python" organized by Open Source Technologies Club of Gujarat Technological University.