Vatsal Goel

B.Tech - Electronics and Electrical Engineering
Minor - Computer Science and Engineering
Indian Institute of Technology Guwahati

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech	Indian Institute of Technology, Guwahati	9.22 (Current)	2016 - Present
Minor	Indian Institute of Technology, Guwahati	8.67 (Current)	2017 - Present
Senior secondary	Maharashtra State board	87.8%	2016
Secondary	ICSE board	96.4%	2014

PROJECTS

- **Optical Character Recognition using Deep Learning**   *Ongoing*
  - Designed a model for detecting text handwriting from images of texts.   *bit.ly/2MNUiln*
  - Worked in keras using Convolutional Neural Networks (CNN) and Long Short Term Memory (LSTM) cells.
  - Currently working on word segmentation techniques.

- **Autonomous Robot for Library Enhancement**
  Project under 4i Labs, Robotics Club, IIT Guwahati (8 member team)   *Ongoing*
  - An initiative to make IITG library the first automated library which allows human intervention and increase the efficiency of book searching and arranging in the shelves.
  - Worked with robotic localization and bar-codes.
  - Currently working on object detection (static and dynamic) using Deep Learning and Computer Vision.

- **Safety device for Fishing Vessels**   *Winter 2017*
  Inter-IIT Tech meet 2018 (4 member team)   *bit.ly/2QzMPYM*
  - Designed a cost-effective system to alert fishing trawlers and other miniature vessels about approaching ships so that they can safely manoeuvre away from them.
  - Worked with nRF sensors , AIS signals, Antennas and Distress Systems.

TECHNICAL SKILLS

- **Programming languages :** C, C++, Python, Java, MATLAB, HTML *, CSS *, Octave *
- **Miscellaneous :** Machine Learning, Deep Learning, Image Processing
- **Libraries :** Numpy, Tensorflow *, Keras
- **Operating system :** Windows, Linux *

  * Elementary proficiency

KEY COURSES TAKEN

- Machine Learning (Coursera)
- Deep Learning Specialization (Coursera)
- Data Structures and Algorithms
- Probability and Random Processes
- AI for Robotics (Udacity)
- Introduction to Game Theory
- Introduction to Computer Vision (Udacity)
- Graph and Automata Theory
- Digital Circuits and Microprocessors
- Advanced Calculus
- Linear Algebra

POSITIONS OF RESPONSIBILITY

- **Core Team, Techniche 2018** (The annual Techno-Management Fest of IIT Guwahati).
  - Managed a team of 10 members, responsible towards bringing international exhibitions and speakers consisting of some of the most influential leaders in the industry.
- **Branch Representative**, Electronics and Electrical Engineering, Pre - Final Year (2018-2019)
- **Core Team, Guwahati Half-Marathon 2018** (The largest half-marathon organized in North East India)
- Organizer, Industrial Conclave, and Exhibitions, Techniche 2017
- City Representative - Pune, Technothlon 2018 (largest student-organized logic exam in India).

ACHIEVEMENTS

- **Inter IIT Tech Meet 2018 :** Obtained a bronze medal for the project "Safety device for Fishing Vessels" competing against 18 other IITs.
- **Joint Entrance Examination Advanced 2016 :** Secured All India Rank 1471 in one of the most competitive entrance exams of India among 150,000 candidates shortlisted for the test through JEE Mains.
- **Joint Entrance Examination Mains 2016 :** Secured All India Rank of 1548 among 1.1 million candidates appearing for the test.