Shubham Sharma

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Educational Qualifications

Year	Degree/Certificate	Institute	CPI/%
2018(Expected)	Bachelor of Technology	Indian Institute of Technology,Kanpur	8.6/10*
2014	Higher Secondary Education	Shivaji Science College,Nagpur	90.15%
2012	Secondary Education	D.A.V Public School,Akola	99.64%

Achievements

- Ranked amongst the **top 2%** of all the students(1.5 lakh) appearing for JEE-Advance 2014
- Ranked amongst the **top 0.5%** of all the students(13 lakh) appearing for JEE-Main 2014
- Secured **All India Rank 1** in interview round of Oxford Speaker's Academy Annual Competition
- Selected for fellowship in **Kishore Vaigyanik Protsahan Yojana (KVPY)**(SX Stream)
- Participated in the various events of the Regional **DNA Fest** conducted by **Bharti Vidyapeeth University(BVIEER), Pune**
- Awarded **Second best Sectional Award** for building an Effective Irrigation System model in the course TA201 IIT Kanpur

Key Projects

- **Wildlife Conservation Project** *Mentored by* **Prof. T.V Prabhakar** *Dec'15-Jan'16*
    - This project aimed to identify areas in which ranger huts should be placed in a national park given the data of poaching of animals to minimize future killings
    - Generated data facilitating formation of clusters and incorporated attributes like terrain, month and time of killing
    - Visualized data on map using Google API for better comprehension
    - Build an SVM (Support Vector Machine) trained over this data to get coefficients of hypothesis
    - Initially used WEKA tool, to classify the data using 10 fold cross validation resulting in about 80% accuracy
    - Further improved our algorithm to get better predictions using R Studio

- **Gesture Recognition Using IMU Sensor** *Mentored by Electronics Club IITK* *May'15-Jun'15*
    - This project aimed to recognize different hand gestures and use it to build human computer interface
    - Collected data of Yaw, Pitch and Roll from an IMU sensor
    - Filtered and Processed the data using Matlab
    - Studied Neural Network architectures and the Backpropagation algorithm
    - Trained a Neural Network to recognize 10 gestures that achieved *90% accuracy*
    - Build an interface using java.awt.project library in Matlab to operate different keyboard keys and mouse cursor using gestures

- **Pick's Theorem Analysis** *Mentored by Dr. Rajat Mittal* *Sep'15-Oct'16*
    - This Project aimed at the analysis of Pick's Theorem used to calculate the area of polygons.

Relevant Courses

- **Computer Science :** Data Structure and Algorithms, Fundamental of Computing, Computer Organisation, Introduction to Computing Labratory
- **Mathematics :** Probability and Statistics, Linear Algebra, Abstract Algebra, Discrete Mathematics, Introduction to Logic, Introduction to Calculus
- **Electrical Engineering :** Introduction to Electronics, Introduction to Electrical Engineering

Technical Skills

- **Programming Languages :** C/C++, Python, HTML, CSS, Verilog
- **Software and utilities :** Latex, Matlab, Weka, R-studio, Autodesk Inventor
- **Platforms :** Linux and windows

Positions of Responsibility

- **Tiger Ambassador of Akola City:** *May'10-May'11*
    * Run various Natural Activities in Akola city under the guidance of Satpuda Foundation and Aircel Presents Kids for Tiger
    * Attended a 3 days National Camp held at Melghat Tiger Reserve
- **Student Guide, Institute Counselling Service** *Jul'15-At Present*
    * Guiding and supporting eight freshmen academically and emotionally in their first year at IIT Kanpur
- **Secretary, Electronics Club** *Jul '15-At Present*
    * Working to initiate lectures and various activities in Club

Extra Curricular Activities

- **Bird Watching** : Attended various natural camps and worked with NGO's for Bird Conservation
- **Photography** : Covered events in Udghosh and Antaragni at IIT Kanpur and done wildlife photography
- **Teaching** : Taught 12th Standard students in Prayas Club, IIT Kanpur
- **Dodge Ball:** Participated as dodge ball player in the 6th Maharashtra State Junior Dodge Ball Championship, Solapur 2012
- **German Language:** Done course on german language under Foreign Language Program, IIT Kanpur