

Shashank Shekhar

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ACADEMIC DETAILS

Examination	Institute	Year	CPI/%
B.Tech., Electronics & Communication	Indian School of Mines, Dhanbad	2017	8.09
Senior Secondary School Examination (Class XII)	Kalka Public School, New Delhi	2013	92.8%
Secondary School Examination (Class X)	G.N.National Public School, Gorakhpur	2011	10.0

FIELDS OF INTEREST

Machine Learning, Data Science, Software-Defined Networking, Artificial Intelligence

TECHNICAL SKILLS

Languages : C, C++, MATLAB. **Script :** R, Python, Bash. **Tools :** Codeblocks, Eclipse, Git, Rstudio.

MAJOR PROJECTS

- **Comparison of different wavelength assignment algorithms for WDM Networks** Sept'14 - March'15
(Guide: Jaisingh T, Asst. Prof., Dept. of Electronics, ISM Dhanbad)
 - Built a simulator for WDM optical networks using basic graph algorithms.
 - Studied various papers related to different wavelength selection algorithms for WDM networks.
 - Compared the performance of random, first-fit, most-used and least-used algorithms for different network sizes and densities.
 - C++ was used for the project.
- **Simulator for Internet-of-Things HetNet** May'15 - June'15
(Guide: Dr. Bheemarjuna Reddy Tamma, HOD, Dept. of Computer Science, IIT Hyderabad)
 - Studied the MAC and Physical Layer protocols for LTE, 802.11ah and 802.15.4 networks.
 - Implemented downlink proportional-fair and SCFDMA based uplink proportional-fair scheduling for LTE.
 - Implemented page-segmentation and RAW based channel-access scheduling for 802.11ah.
 - MATLAB was used for the project.
- **Prosthetic Eye Synthesis** July'15
(Under MIT Media Labs and LVP Eye Institute REDX workshop)
 - Used facial symmetry to reconstruct eye point cloud for 3D scan of patients with an eye removed.
 - Implemented mean shift clustering to detect the plane of symmetry among different reflection planes.
 - C++, Point cloud library was used for the project.
 - [link to Github repository](#)
- **Traffic Prediction** July'15-till date
(Guide: Dr. Sukhant Khurana, Asst. Prof., Dept. of Biological Sciences, IISER Kolkata)
 - The project plans to use graph theory and machine learning to predict traffic routes for NY city based on publicly available datasets.

Academic Achievements

- Awarded Indian Academy of Sciences Summer Research Fellowship 2015.
- Secured All India Rank 5845(<4 percentile) in JEE Advanced 2013.
- Ranked 44 in National Science Olympiad organised by Science Olympiad Foundation (2009-10).

Extra Curriculars

- Volunteer at Kartavya, ISM Dhanbad (Dec'13-April'14) .Taught English to underprivileged Class V kids.
- Volunteer at Udaan, Gorakhpur (Dec'13).Taught underprivileged kids in primary school.
- Organiser for Workshop on Image Processing and Gesture Recognition using MATLAB (in association with Technophilia) at Concetto-2014, ISM Dhanbad.
- Member of Quiz Club and ACM Student Chapter, ISM Dhanbad.