

# TANVI AJAY NERKAR

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## EDUCATIONAL QUALIFICATIONS

Year	Degree	Institution(Board)	CGPA/%
July'18 – June'22 (expected)	B.Tech, EE	Indian Institute of Technology, Kanpur	8.9/10.0
2018	AISSCE – XII	National Public School Indiranagar, Bangalore	97.4%
2016	ICSE – X	Baldwin Girls' High School, Bangalore	97.8%

## SCHOLASTIC ACHIEVEMENTS

- Rank 1299, JEE Advanced (among 160,000 candidates)
- Rank 626, JEE Main (among 1.1 million candidates)
- Rank 101, KVPY Scholarship (2016)
- Ranks 2, 8 and 23, in Cyber, English and Maths Olympiads respectively (2013)

## CO-CURRICULAR ACHIEVEMENTS

- Young Scientist of the Year, received from Dr. Kalam
- Best Vice Captain Award, Baldwin Girls' High School
- City Topper, Times NIE Think and Learn Challenge
- National Rank 2, Max Life Insurance iGenius Scholarships

## PROJECTS

### Evaluating Neural Word Embeddings for Sanskrit

Guided by Prof. Pawan Goyal, IIT Kharagpur May'2020-July'2020

- Implemented 3 categories of neural word embeddings in Sanskrit and examined the quality of 2 embedding models per category.
- Performed extrinsic evaluation using POS tagging, dependency parsing and multi-class classification, and intrinsic evaluation using synonym detection, concept categorization and analogy prediction.
- Evaluated the efficacy of word embeddings approaches that were initially proposed for other languages.
- Identified the challenges posed by the low resources and rich morphological nature of Sanskrit.

### Life@IITK

Programming Club, IIT Kanpur

📄 Life@IITK

May'2019-July'2019

- Designed a web app for updates on individual academic and non-academic student-body activities on campus.
- Developed the front end for application using ReactJS.

### Envy-free Rent Division

Course Project under Prof. Swaprava Nath

📄 FairRentDivision

Feb'2019-Apr'2019

- Developed an application to find a fair and envy-free room and price allocation for a hostel.
- Implemented the Hungarian Algorithm to find a maximum weighted bipartite matching using Python libraries SciPy and PuLP.

### Air Hockey

School Project

📄 AirHockey

Sep'2017-Nov'2017

- Developed air hockey using PyGame as a practical application project for AISSCE 2018.

## RELEVANT COURSES

Microelectronics  
Control System Design and Analysis  
Signals, Systems and Networks  
Introduction to Power Systems

Probability and Statistics  
Linear Algebra  
Ordinary & Partial Differential Equations  
Real & Complex Analysis

Foundations of Cognitive Science  
Bilingualism  
Language and Society  
Introduction to Literature

## WORK EXPERIENCE

### Smart Purchase App

CSE@IITK Summer of Code

📄 Smart Purchase App

May'2019-July'2019

- Built a centralized inventory and finance tracking application for the NGO Vitraag Vigyaan.
- Developed a full stack web application using the MERN stack and worked primarily on the frontend using ReactJS.

### Technovation Challenge

Participant

Bangalore, India

Feb'2014 - Jul'2014

- Designed an application to help high school girls explore different career options through a virtual game setting.
- Led team of 5 to build and deploy mobile app developed using MIT App Inventor 2 and Google Fusion Tables.
- Presented the application, business plan, and implementation vision at the Regional Pitch Event.

### Infosys Ltd.

Student Intern

Bangalore, India

April 2014

- Selected from over 1000 candidates across Bangalore to receive Information Technology Training.
- Attended workshops on cloud computing, software development, databases, and business presentations.

## SKILLS

**Languages:** Python, C, C++, Java, JavaScript

**Libraries:** TensorFlow, spaCy, NumPy, pandas, PyGame

**Web:** React, Node.js, MongoDB, Express.js, Ruby on Rails

**Utilities:** Git, L<sup>A</sup>T<sub>E</sub>X, MATLAB, GNU Octave

## POSITIONS OF RESPONSIBILITY

- **Secretary**, Programming Club, IIT Kanpur
- **Secretary**, English Literary Society, IIT Kanpur
- **Student Guide**, Counselling Service, IIT Kanpur
- **Academic Mentor**, Counselling Service, IIT Kanpur

## MISCELLANEOUS

- Conducted an orientation session in Goldman Sachs as a panelist representing the Technovation Alumni.
- Secured 1<sup>st</sup> place in Freestyle (40 m) at college level swimming event.
- Won Gold Medal at the State level Roller Skating Competition (Andhra Pradesh, 2008).
- Won Derek's Faster Smarter Better Challenge and Times NIE Quizomania.