# TANVI AJAY NERKAR

Junior Undergraduate Department of Electrical Engineering Indian Institute of Technology, Kanpur

# EDUCATIONAL QUALIFICATIONS

Year	Degree	$\operatorname{Institution}(\operatorname{Board})$	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)
- Abdul Kalam Trophy, received from Dr. Kalam himself
- Ranks 2, 8 and 23, in Cyber, English and Maths Olympiads respectively (2013)

## CO-CURRICULAR ACHIEVEMENTS

- 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

Project under Dr. 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.

 $Programming\ Club,\ IIT\ Kanpur$ 

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

**☐** FairRentDivision

 $Course\ Project\ under\ Prof.\ Swaprava\ Nath$ 

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

AirHockey

 $Self\ Project$ 

Sep'2017-Nov'2017

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

## Work Experience

Smart Purchase App

CSE@IITK Summer of Code

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**

Bangalore, India Feb'2014 - Jul'2014

Participant

• 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.

 $Bangalore,\ India$ 

 $Student\ Intern$ 

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, LATEX, 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

- Participated in 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 twice and was finalist in Times NIE Quizomania.

## Relevant Courses

Microelectronics Control Systems Analysis Signals, Systems and Networks Introduction to Electrical Engineering Probability and Statistics Linear Algebra Ordinary & Partial Differential Equations Real & Complex Analysis Foundations of Cognitive Science Bilingualism Language and Society Introduction to Literature