Tanvi Ajay **Nerkar**

JUNIOR UNDERGRADUATE · ELECTRICAL ENGINEERING
Indian Institute of Technology Kanpur, India

✉ tanvinerkar517@gmail.com | ⌂ tanvinerkar.github.io | ⬡ tanvinerkar | in tanvinerkar

Education

Indian Institute of Technology Kanpur	*Kanpur, India*
BACHELOR OF TECHNOLOGY, ELECTRICAL ENGINEERING · CGPA: **8.9 / 10.0**	*2018 - 2022 (exp.)*
National Public School Indiranagar	*Bangalore, India*
CBSE BOARD · SCHOOL TOPPER AMONG ALL STREAMS · SCORE: **97.4%**	*2018*
Baldwin Girls' High School	*Bangalore, India*
ICSE EXAMINATION · SCHOOL TOPPER · SCORE: **97.8%**	*2016*

Honors & Awards

ACADEMIC

2018	**All India Rank 1299**, Joint Entrance Examination (Advanced) (among 160,000 candidates)	*India*
2018	**All India Rank 626**, Joint Entrance Examination (Main) (among 1.1 million candidates)	*India*
2017	**All India Rank 101**, Kishore Vaigyanik Protsahan Yojana, Indian Institute of Science	*Bangalore, India*
2013	**International Rank 2**, International Cyber Olympiad, Science Olympiad Foundation	*India*
2013	**International Rank 8**, International English Olympiad, Science Olympiad Foundation	*India*
2013	**International Rank 23**, International Mathematics Olympiad, Science Olympiad Foundation	*India*
2010-15	**Efficiency Trophy**, Best Academic Performance across the batch	*Bangalore, India*

CO-CURRICULAR

2016	**Young Scientist of the Year**, received from Late Dr. APJ Abdul Kalam	*Bangalore, India*
2016	**Best Vice Captain Award**, Baldwin Girls' High School	*Bangalore, India*
2014	**City Topper**, The Times NIE Think and Learn Challenge	*Bangalore, India*
2012	**National Rank 2**, Max Life Insurance iGenius Scholarships among 100,000 students	*India*

Work Experience

CSE@IITK Summer of Code	*Kanpur, India*
PARTICIPANT · ⬡ SMART PURCHASE APP	*May 2019 - Jul. 2019*

- Built an application to centralize inventory and streamline financial transactions 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*
PARTICIPANT · CLINTON GLOBAL INITIATIVE	*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 in Bangalore.

Infosys Ltd.	*Bangalore, India*
STUDENT INTERN · SPARK CATCH THEM YOUNG PROGRAM	*April 2014*

- Topper of a batch of 40 students, selected from over 1000 candidates across Bangalore to receive training in a corporate environment.
- Attended workshops on cloud computing, software development methodology analysis, databases, and business presentations.
- Built a small-scale, standalone application using C# for web-based IT services within a span of 2 weeks.

Projects

Evaluating Neural Word Embeddings for Sanskrit	*IIT Kanpur*
SUMMER PROJECT UNDER PROF. PAWAN GOYAL, IIT KHARAGPUR	*May 2020 - Jul. 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 and identified the challenges posed by the low resources and rich morphological nature of Sanskrit.

Life@IITK
Programming Club, IIT Kanpur · Life-IITK

IIT Kanpur
May 2019 - Jul. 2019

- Designed a unified web app for activities, updates, and personal scheduling including individual academic and non-academic student-body updates on campus.
- Developed the front end for application using ReactJS for the web application and React Native for mobile application.

Envy-free Hostel Room Allocation App
Course Project under Prof. Swaprava Nath · Fair Rent Division

IIT Kanpur
Feb. 2019 - Apr. 2019

- Created 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 the Python libraries SciPy and PuLP.

AirHockey
School Project · AirHockey

Bangalore, India
Sep. 2017 - Nov. 2017

- Developed the game Air Hockey using PyGame in Python as a practical application project for Computer Science, AISSCE 2018.
- Incorporated file handling to record scores and included friction in the game dynamics to help the computer play against human player.

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

Relevant Coursework

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

Positions of Responsibility

2019-20	**Student Guide**, Counselling Service	*IIT Kanpur*
2019-20	**Academic Mentor**, Counselling Service	*IIT Kanpur*
2019-20	**Secretary**, Programming Club	*IIT Kanpur*
2019-20	**Secretary**, English Literary Society	*IIT Kanpur*
2015-16	**House Vice Captain**, Baldwin Girls' High School	*Bangalore, India*

Miscellaneous

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