

Mohd Abbas Zaidi

B.Tech, Indian Institute of Technology Kanpur(IITK)

Major: Electrical Engineering

Minor: Machine Learning & Cognitive Science

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Homepage

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ACADEMIC DETAILS

Educational Qualification	Institute/Board	Year	CPI/%
B.Tech	IIT Kanpur	2019	10.0/10.0
Intermediate - ISC	CMS, Gomti Nagar,Lucknow	2014	96.5/100.0
HighSchool - ICSE	Anand Bhawan School, Barabanki	2012	92.4/100.0

SCHOLASTIC ACHIEVEMENTS

- **Institute Rank 1** in terms of highest aggregate CPI among the UG students graduating from IITK in 2019
- Secured an **All India Rank 414** in IIT-JEE Mains 2015
- Secured an **All India Rank 1657** in IIT-JEE Advanced 2015
- Recipient of the **Academic Excellence Award** for the sessions 2015-16, 17-18 and 2018-19 at IIT Kanpur
- Recipient of the **Anita & Santohsi Mehra Scholarship** for the session 2018 at IIT Kanpur
- Recipient of the **Smt Dharam Vati Garg Award'18** at IIT Kanpur [Update criteria here](#)
- Recipient of the **Lalit Narain Das Scholarship'18** at IIT Kanpur

INTERNSHIP EXPERIENCE

- **Samsung Research Headquarters, Samsung Electronics, Seoul, South Korea** May'18-Jul'18
Language Understanding Lab | NLP
 - Reached the ADVANCED level in Samsung Software proficiency coding test
 - **Generating Well Formed Answers for AI Assistants and Chat-bots**
 - * Reached the **top of the leader-board** for **Microsoft's MS Marco** data-set under Intermediate task
 - * Generated more verbose non-span based answers using words from out of vocabulary
 - * Modified the existing ConZNet architecture as per the dataset to speed up the processes

MAJOR PROJECTS

- **Detecting Semantically similar questions on Quora** Jan'18-Apr'18
Prof. Harish Karnick | CSE | IIT Kanpur
 - Building a binary classification algorithm which predicts whether two questions are similar or not
 - Proposed a pre-processing approach based on 'Mental Lexicon' concept from Psycho-linguistics
 - Based on conditional independence of similarity from higher order words given their specific forms
 - Developed linguistic constraints to improve the performance of the existing methods to over 84%
- **Convolved Neural Network based Real Time Sentiment Analysis** Aug'17-Nov'17
Prof. Purushottam Kar | CSE | IIT Kanpur
 - Detects the emotion of the user based on movement of facial muscles taking in his webcam feed
 - Achieved an accuracy of over 70% from a set of 6 different emotions in real time
 - Employed Lenet, Mobile Nets and Alex Net for the task, finally AlexNet was deployed
 - Finds application in deriving **true user reviews** free from external biases from the user's side
- **STTC + Total Variation based Robust Multimedia Reconstruction** May'17-Dec'18
Prof. Aditya Jagannatham | EE | SURGE IIT Kanpur [Can be moved up now](#)
 - Incorporated the bounded variation property of images into Space Time Trellis Codes
 - Designed a single novel joint decoder for both for maximum likelihood and total variation metric

- **Removing the Sample Bottleneck Constraint from Gaussian Process Regression**

July'18-Present

Prof. Ketan Rajawat | EE | SPiN Lab | IIT Kanpur

- Aiming to remove the bottleneck due to N^3 dependence of GP updates on the training sample size.
- Trying to make Gaussian Processes more suitable for online settings.
- Established the superiority of Parsimonious Online Gaussian processes over Sparse Online Gaussian Process

- **Coherent Sentence & Paragraph Reordering**

Aug'18-Nov'18

Prof. Arnab Bhattacharya | CSE | IIT Kanpur

- To build a data-set for the problem of coherent sentence and paragraph reordering.
- To design multiple deep-net architectures suitable for the above mentioned task
- Coherent reordering finds applications in multi-document summarisation and even QA systems.

TECHNICAL SKILLS

- **Programming/Scripting Languages:** Python, C, C++, Matlab, Java ^{Should hopefully get long}
- **Tools/Software Packages used:** PyTorch, Tensor Flow, Keras, Arduino IDE, Processing, L^AT_EX
- **Operating Systems used:** Mac, Windows, Ubuntu

RELEVANT COURSEWORK

Data Structures and Algorithm	Introduction to Machine Learning	Image Processing
Probability & Statistics	Introduction to Computing	Data Mining
Psychology of Language	Introduction to Cognitive Science	Neurobiology
Computational Cognitive Science	Natural Language Processing	Complex Analysis
Human Perceptual Processes	Information Theory & Communication	Linear Algebra

COMMUNITY SERVICE AND POSITIONS OF RESPONSIBILITY

- **Core Team Operations** ^{Add a few more, atleast names. Think!} Counselling Service | Feb'17-present
 - Helped over a dozen students under academic probation to return to normalcy at an individual level
 - Led a team of 138 Student Guides and ensured a smooth conduction of a 6-day Orientation Programme
 - Conducted Personality Enhancement Classes to help the students develop good communication skills