

Mohd Abbas Zaidi

Junior Undergraduate, Indian Institute of Technology Kanpur(IITK)
Major: Electrical Engineering
Minors: Machine Learning

IITK Email: mzaidi@iitk.ac.in
Email: mzaidi59@gmail.com
Mobile +[91] 894 826 7081
G109, Hall 9, IIT Kanpur

ACADEMIC DETAILS

Educational Qualification	Institute/Board	Year	CPI/%
Intermediate - ISC	CMS, Gomti Nagar, Lucknow	2014	96.5/100.0
HighSchool - ICSE	Anand Bhawan School, Barabanki	2012	92.4/100.0

SCHOLASTIC ACHIEVEMENTS

- Secured an **All India Rank 414** in IIT-JEE Mains 2015 among over 1.2 million candidates
- Secured an **All India Rank 1657** in IIT-JEE Advanced 2015
- Recipient of the **Academic Excellence Award** for the sessions 2015-16 and 2017-18 at IIT Kanpur
- Recipient of the **Anita & Santohsi Mehra Scholarship** for the session 2018 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

- Generating Well Formed Answers for AI Assistants and Chat-bots** May'18-Jul'18
Language Understanding Lab | NLP AI | Samsung Research
 - Implemented Residual Block in the ConZNet architecture, aimed at generating well formed answers
 - Reached the top of the leader-board for Microsoft's MS Marco data-set under Intermediate task
 - Provided more empathetic and verbose answers using NLG Decoders(with pointer mechanism)
 - The work featured on Samsung Research website and major NLP blogs and AI news-forums
- 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
 - 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
- **Tools/Software Packages used:** PyTorch, Tensor Flow, Keras, Arduino IDE, Processing, \LaTeX
- **Operating Systems used:** Mac, Windows, Ubuntu

RELEVANT COURSEWORK

Data Structures and Algorithm
Probability & Statistics
Neurobiology
Computational Cognitive Science
Complex Analysis

Introduction to Machine Learning
Introduction to Computing
Introduction to Cognitive Science
Bioinformatics & Computational Biology
Information Theory & Communication

Natural Language Processing
Data Mining
Psychology of Language
Human Perceptual Processes
Linear Algebra

* Plan to do in Spring'18

COMMUNITY SERVICE AND POSITIONS OF RESPONSIBILITY

- **Core Team Operations**

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

- **Academic Mentor(ESC101) & Student Guide**

Counselling Service | Apr'16-Apr'17

- To **Mentor** freshmen by conducting classes at **Institute** and **Hostel** level in a basic programming course
- To **Guide** a group of 8 freshmen throughout their stay at the campus in all possible ways

- **Company Coordinator**

Student Placement Office | Aug'16-Apr'17

- Coordinated the placement, internship tests and interview processes for a number of recruiters

EXTRA CURRICULAR ACTIVITIES

- **2nd** prize in **Electrade**, on the spot circuit design event held under **Techkriti'18**, an inter-collegiate technical festival with participants from all over India
- **Winner**, Kho-Kho intra-murals'15-16, playing alongside national level players, IIT Kanpur
- **Winner**, Inter-House Basketball 2010, **Runner-up**, 2011, High school
- **Bagged** 1st prize at District level **Essay Senior** and **Just a Minute** Competition, Barabanki, India
- **Runner-up**, Fresher's Poem Writing Competition, IIT Kanpur
- **Bagged** 1st prize at Fresher's photography competition, IIT Kanpur