

Mohd Abbas Zaidi

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[Semantic Scholar](#)/[Google Scholar](#)

Education

2015–2019 **Bachelor of Technology, Indian Institute of Technology Kanpur,**
Major - Electrical Engineering, Minors - Machine Learning & Applications | Cognitive Science.
Institute Rank 1 (Highest absolute GPA in Class of 2019), GPA – **10.0/10.0**
English Proficiency: GRE - 330/340 (160V + 170Q) - 4.5/6 (W) | Toefl 119/120

Research Experience

- 2019 - **Software Engineer | NLP Lab, SAMSUNG RESEARCH HQ, Seoul.**
- Present Neural Machine Translation Group | Speech Translation and Recognition
- First rank in Simultaneous Translation challenge (low latency) during ACL-IWSLT 2020
 - Established new end-to-end state of the art for the English German MuSTC speech translation task
 - Awarded research, development and innovation awards within Samsung Research
 - Works published in AI conferences, [ACL - IWSLT 2020](#), and ICASSP2021
- Summer **Natural Language Processing Internship, SAMSUNG RESEARCH HQ, Seoul, South Korea.**
- 2018 Generating well-formed answers for AI assistants and chatbots.
- Reached the top of leaderboard for MICROSOFT'S MS MARCO Intermediate challenge.
 - Generated more verbose non-span based answers using pointer network to fetch out of vocabulary words
 - Results published on Samsung Newsroom [website](#) and many other [AI/ NLP](#) blogs
- Summer **Research Internship, INDIAN SPACE RESEARCH ORGANIZATION-IITK SPACE CELL, Kanpur, India.**
- 2017 Prof. Aditya Jagannatham | STTC + Total Variation based Robust Multimedia Reconstruction.
- Incorporated the bounded variation property of images into Space Time Trellis Codes
 - Designed a hierarchical joint decoder to optimize the maximum likelihood and total variation metric
 - Work was [published](#) in IEEE Access Journal (Volume: 8), April 2020

Industry Experience

- Summer **Machine Learning & Development Internship, POCKETFM, Bengaluru, India.**
- 2019 Machine Learning
- Made the search language agnostic between hindi, english & hinglish semantically and syntactically
 - Used ALS Matrix factorization on RDD database to build recommendation system for the App
- Backend Development
- Deployed a centralized back-end logging system(ELK stack) to automate the process of monitoring error logs
 - Deployed a shipped, filter an indexing framework, dashboards and a mechanism to provide burst error alerts

Publications

- Oct 2021 **Decision Attentive Regularization to Improve Simultaneous Speech Translation Systems, ICASSP 2022 (under review).**
Mohd Abbas Zaidi*, Beomseok Lee*, Nikhil Kumar Lakumarapu, Sangha Kim, Chanwoo Kim
- Sep 2021 **Infusing Future Information into Monotonic Attention Through Language Models, [arxiv link](#), ICLR 2022 (under review).**
Mohd Abbas Zaidi*, Sathish Indurthi*, Beomseok Lee, Nikhil Kumar Lakumarapu, Sangha Kim
- Jan 2021 **Task Aware Multi-Task Learning for Speech to Text Tasks, ICASSP 2021, [link](#), * - Equal Contribution.**
Sathish Indurthi*, **Mohd Abbas Zaidi***, Nikhil Kumar Lakumarapu, Beomseok Lee, Hyojung Han, Seokchan Ahn, Sangha Kim, Chanwoo Kim, Inchul Hwang
- Jan 2021 **Faster Re-translation Using Non-Autoregressive Model For Simultaneous Neural Machine Translation, [arxiv](#), [link](#).**
Hyojung Han, Sathish Indurthi, **Mohd Abbas Zaidi**, Nikhil Kumar Lakumarapu, Beomseok Lee, Sangha Kim, Chanwoo Kim, Inchul Hwang

- Jul 2020 **End-to-End Simultaneous Translation System for IWSLT2020 Using Modality Agnostic Meta-Learning**, *ACL 2020*, [link](#).
Houjeung Han, Mohd Abbas Zaidi, Sathish Indurthi, Nikhil Kumar, Beomseok Lee, Sangha Kim
- Jul 2020 **End-to-End Offline Speech Translation System for IWSLT 2020 using Modality Agnostic Meta-Learning**, *ACL 2020*, [link](#).
Nikhil Kumar, Beomseok Lee, Sathish Indurthi, Houjeung Han, Mohd Abbas Zaidi, Sangha Kim
- May 2020 **Hierarchical Trellis Based Decoder for Total Variation Sequence Detection (TVSD) in Space-Time Trellis Coded (STTC) Wireless Image/Video Communication**, *IEEE Access Journal*, [link](#).
Ankit Kudeshia, Mohd Abbas Zaidi, Aditya Jagannatham, Chandra Prakash

Awards & Achievements

- June 2021 **Samsung Research Software Innovation Award**, *CFO, Samsung Research*.
'Speech Translation' project won the Award in the 'Innovative Technology' category.
- Oct 2020 **Samsung Best Paper Award**, *Samsung Research*.
Won the SBPA Bronze Award for the 'Faster Retranslation using Non-Auto-regressive model, FReTNA'
- May 2020 **Samsung Foldable App Hackathon**, *Samsung Research*.
Won the 2nd prize after idea-conception, design and development of a new application for Samsung Galaxy Fold
- Jun 2019 **Prof. Putcha Venketeswarlu Memorial Gold Medal**, *IIT Kanpur*, Highest GPA in the Class of 2019.
- Jun 2019 **General Proficiency Medal**, *IIT Kanpur*, Highest GPA in EE post graduation.
- Mar 2019 **Lalit Narain Das Memorial Scholarship**, *IIT Kanpur*, Highest GPA in EE during Senior Year.
- Feb 2019 **Smt Dharm Vati Garg Scholarship**, *IIT Kanpur*, Highest GPA overall during Senior Year.
- Mar 2018 **Anita Santoshi Mehra Foundation Scholarship**, *IIT Kanpur*, Highest GPA in EE during Junior Year.
- 2015-2018 **Academic Excellence Award**, *IIT Kanpur*, Awarded for three consecutive years.
- Jun 2017 **SURGE**, *IIT Kanpur*, Undergraduate Research Grant for Summer Internship.

Undergraduate Research

- Fall 2018 **Removing the Sample Bottleneck Constraint from Gaussian Process Regression**,
Prof. Ketan Rajawat, SpIN Lab, EE, IIT Kanpur.
 - o Aiming to remove the bottleneck due to N^3 dependence of GP updates on the training sample size.
 - o Trying to make Gaussian Processes more suitable for online settings.
 - o Established the superiority of Parsimonious Online Gaussian Processes over Sparse Online Gaussian Process

Teaching & Mentoring

- Jan 2019- **Electrical Engineering Lab, IIT Kanpur**, *Teaching Assistant*, EE381A, *Prof. Baquer Mazhari*.
- Apr 2019
 - o Mentored students during the project component of the course
 - o Compiled resources related to Electronic Circuit experiments for the project component of the course
- Apr 2016- **Fundamentals of Computing, IIT Kanpur**, *Academic Mentor*, ESC101A, Counselling Service.
- Apr 2017
 - o To mentor freshmen by conducting classes at Institute and Hostel level for introductory programming course
 - o Held one-to-one mentoring sessions for students with unsatisfactory performance in the course
- Feb 2017- **Counselling Service, IIT Kanpur**, *Member, Core Team Operations*.
- Mar 2018
 - o Mentored the students placed under academic probation by the institute to help them return to normalcy
 - o Mentored a group of 8 students from the junior batch throughout their stay at the campus
 - o Conducted Personality Enhancement Classes with the help of professional counsellors during the summer break

Relevant Coursework

- ML & AI Introduction to ML, Introduction to NLP, Data Mining, Convex Optimization, Image Processing
- Cog. Sci Foundations of Cognitive Science, Neurobiology, Human Perceptual Processes, Computational Cognitive Science, Psychology of Language
- MATHS Probability & Statistics, Linear Algebra, Differential Calculus, Ordinary/ Partial Differential Equations, Complex Variables(Calculus)