Aman Khullar

https://amankhullar.github.io

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EDUCATION

Netaji Subhas Institute of Technology, University of Delhi New Delhi, India
Bachelor of Engineering in Information Technology *Aug. 2015 – May. 2019*
First Class with Distinction (CGPA: 8.65/10.00)

EXPERIENCE

Gram Vaani Gurugram, India
Research Associate *Mar 2020 – Present*
- Building automatic content moderation tools for in-house moderators, voice based surveys for user data collection and automatic question-answering system for IVR platforms — deploying in a product used by 800,000 rural households
- Conducting research on design of AI tools (in a social context) through user interviews and making continuous algorithm and design improvements — sought 350 responses on voice survey and interviewed 5 senior moderators — found correlation between question looping and user dropouts; deployed location entity recognition for moderation
- Speech2text code helped audit 25,000 migrant workers; enabled 550 stranded workers reach home during lockdown

Product Labs, IIIT Hyderabad Hyderabad, India
Research Engineer *Jul 2019 – Feb 2020*
- Developed a deep learning based document question-answering model to extract answers from a group of documents; achieved 3 seconds response time and 90% accuracy over 137 page document — evaluated by Indian Army
- Productized the research — model formed core product for Subtl.ai's first instance shipped to 2,500 users

Laboratory for Computational Social Systems, IIIT Delhi New Delhi, India
Research Intern *Dec 2018 – Jan 2019*
- Implemented baseline papers (pointer-generator and MSMO) for extractive text and multimodal summarization
- Work formed the foundation of Bachelor's thesis which explored the use of visual and audio cues to supplement text

PUBLICATIONS

Mira Johri, Sumeet Agarwal, **Aman Khullar**, Dinesh Chandra, Vijay Sai Pratap and Aaditeshwar Seth. 2020. The first 100 days: How has COVID-19 affected poor and vulnerable groups in India? (Under review — talk presented at Canadian Conference on Global Health 2020 and drafted a Policy Brief, link for policy brief).

Aman Khullar* and Udit Arora*. 2020. MAST: Multimodal abstractive summarization with trimodal hierarchical attention. In Proceedings of EMNLP's NLP Beyond Text Workshop (*=equal contribution, link).

Abhishek Arora*, **Aman Khullar***, Sarath Chandra Pakala*, Vishnu Ramesh* and Manish Shrivastava. 2020. Subtl.ai at the FinSBD-2 task: Document Structure Identification by Paying Attention. In Proceedings of IJCAI-PRICAI's Financial Technology and Natural Language Processing Workshop (*=equal contribution, link).

ACADEMIC SERVICE & AWARDS

- **Program Committee**: EMNLP Workshop on NLP Beyond Text, 2020
- **Google Research India AI Summer School**: Among 150 candidates selected in India for AI summer school 2020
- **India's Brightest 33 Engineers**: Among the cohort of 33 students recognized as the brightest engineers in India by the Economic Times in 2018 (experience talk)

PROJECTS & LEADERSHIP

- **Autonomous Mars Rover**: Co-founder and team lead of ARES, NSIT's first Mars rover team for University Rover Challenge — among top 71 and 30 teams in University and European Rover Challenges respectively
- **MultiModal BiDirectional Attention Flow model**: Augmented a machine comprehension model (BiDAF) to be used for multimodal summarization and presented it for my Bachelor's thesis — awarded 3rd highest grade in batch
- **Interaction of Game Theory and Machine Learning in a connected World**: Presented a survey report highlighting intersection of these fields in electronic market design and selfish routing — awarded highest grade in batch

SKILLS

- **Languages and Frameworks**: Python, C/C++, PyTorch, Git, MySQL, Django