Aman Madaan

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EDUCATION

School of Computer Science, Carnegie Mellon University AUGUST 2019 - PRESENT
M.S. Language Technologies (CPA: 4.16/4.33)
Advisor: Prof. Yiming Yang

Indian Institute of Technology Bombay, Mumbai JULY 2013 - JULY 2015
***M.Tech.** in Computer Science and Engineering (CPI: 10.0/10.0, Department Rank 1)*
Thesis: Numerical Relation Extraction with Minimal Supervision

Guru Gobind Singh Indraprastha University, Delhi JULY 2009 - JUNE 2013
***B.Tech.** in Computer Science and Engineering (Percentage : 87.4, , Department Rank 1)*
Thesis: Distributed Compilation as a Service

RESEARCH INTERESTS

- Commonsense Reasoning, Context-grounded Generation, Language Modeling, Graph-based Reasoning

PEER-REVIEWED PUBLICATIONS

- **Aman Madaan**, Dheeraj Rajagopal, Niket Tandon, Yiming Yang, and Eduard Hovy. Could you give me a hint? generating inference graphs for defeasible reasoning. In *Findings of the Association for Computational Linguistics: ACL 2021*. Association for Computational Linguistics, July 2021
- **Aman Madaan** and Yiming Yang. Neural language modeling for contextualized temporal graph generation. In *Proceedings of the 2021 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies*, pages 864–881, Online, June 2021. Association for Computational Linguistics
- **Aman Madaan**, Amrith Setlur, Tanmay Parekh, Barnabas Poczos, Graham Neubig, Yiming Yang, Ruslan Salakhutdinov, Alan W Black, and Shrimai Prabhumoye. Politeness transfer: A tag and generate approach. In *Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics*, pages 1869–1881, Online, July 2020. Association for Computational Linguistics
- **Aman Madaan**, Shruti Rijhwani, Antonios Anastasopoulos, Yiming Yang, and Graham Neubig. Practical comparable data collection for low-resource languages via images. *PML4DC Workshop @ ICLR*, 2020
- **Aman Madaan**, Jagdish Chand, and Anant Singhania. Lookalike modeling at scale. In *iCube 2017 Visa US Inc.*, pages 13–21. Visa Inc, 2017
- **Aman Madaan**, Ashish Mittal, Ganesh Ramakrishnan, and Sunita Sarawagi. Numerical relation extraction with minimal supervision. In *Thirtieth AAAI Conference on Artificial Intelligence*. AAAI, 2016. pdf: https://homes.cs.washington.edu/~mausam/papers/aaai16a.pdf
- Sunil Kr Singh, **Aman Madaan**, Ankur Aggarwal, and Ankur Dewan. Design and implementation of a high performance computing system using distributed compilation. In *International Conference on Advances in Computing, Communications and Informatics (ICACCI), 2013*, pages 1352–1357. IEEE, 2013

PRE-PRINTS

- **Aman Madaan**, Dheeraj Rajagopal, Yiming Yang, Abhilasha Ravichander, Eduard Hovy, and Shrimai Prabhumoye. Eigen: Event influence generation using pre-trained language models. *arXiv e-prints*, pages arXiv–2010, 2020

PROFESSIONAL ACTIVITIES

- Program Committee Member (Reviewer): ACL 2020, EMNLP 2020, AAAI 2021, EACL 2021 **(Outstanding reviewer)**, NAACL 2021, ACL 2021, NLP for social good 2021
- Organizer, Workshop on Benchmark Evaluation for Natural Language Generation (GEM), ACL 2021

Industry Experience

- **Oracle, Redwood Shores, CA** *(December 2017 - August 2019)*
  *(**Principal Member of Technical Staff**)*
- **Visa, Foster City, CA** *(August 2015 - December 2017)*
  *(**Senior Decision Analytics Architect**)*

Patents

- Krishnan Ramanathan, Jagan Narayanareddy, Gunaranjan Vasireddy, and **Aman Madaan**. System and method for determining an amount of virtual machines for use with extract, transform, load (etl) processes, October 22 2020. US Patent App. 16/852,509
- Krishnan Ramanathan, Jagdish Chand, and **Aman Madaan**. System and method for determination of recommendations and alerts in an analytics environment, October 22 2020. US Patent App. 16/851,872
- Krishnan Ramanathan, Gangadhar Ronaki, and **Aman Madaan**. System and method for automatic generation of extract, transform, load (etl) asserts, October 22 2020. US Patent App. 16/851,872
- Ranjan Dutta, Varun Sharma, **Aman Madaan**, Somashekhar Pammar, and Zian Huang. Database conditional field access, July 9 2019. US Patent 10,346,400
- **Aman Madaan**, Jagdish Chand, Somashekhar Pammar, Venkata Sesha Rao Polavarapu, Sunil Sharma, Tarun Jain, Dirk Reinshagen, Derek Vroom, et al. Segmentation platform, August 23 2018. US Patent App. 15/436,458

Awards & Achievements

- **Above and Beyond Award** by Visa Inc., **Awarded six times** for work done on the Segmentation Platform, SpendBot, leading initiatives that led to successful demos and technical talks, and extraordinary contributions to the business, **Jan 2016 - October 2017**.
- **Promoted within 11 months** of starting at Visa to Senior Decision Analytics Architect *(the average time for promotion to the level is **4 years**)*, **September 2016**.
- **TA Excellence Award** by Dept. of C.S.E., IIT Bombay, for work done while assisting Prof. Saketha Nath in **CS 725 (Foundations of Machine Learning)**, **October 2015**.
- **Ajit Shelat Award**, *Given to a deserving M. Tech. student from the EE Dept and CSE Dept combined with the highest CPI*, 53^{rd} Convocation, IIT Bombay, **August 2015**.
- **Institute Silver Medal**, 53^{rd} Convocation, IIT Bombay, **August 2015**.
- **Winner, AngelHack Mumbai**, (**out of 38 teams**). Selected for the finals and **accepted at HACKcelerator** program with office space, mentorship and $5000 worth of Amazon AWS credits (*declined*), **June 2014**.
- **Best Outgoing Student Award, 2013 batch** by Bharati Vidyapeeth's College of Engineering. **May 2013**.
- **TCS Best Student Award**, Presented to **100 students across India**, **April 2013**.
- **All India Rank 9** in Graduate Aptitude Test in Engineering (GATE) 2013 out of **224,160** candidates, **March 2013**.
- **Excellence in Academics Award**, Lambda Eta Chapter, IEEE-HKN, BVCOE, New Delhi, **October 2012**.
- **Winner, TCS Mobeel, (out of 247 teams)**, All India Mobile application development competition. I was the **team lead** in a team of 3, **July 2012**.
- **Academic Excellence Award** For securing the highest marks in Maths and Computer Science in High School.

Skills

- **Proficiency:** Python, Pytorch, Bash.
- **Prior Professional Experience:** Scala, Java, C++, Tensorflow, Apache Spark, Apache Hadoop, Deeplearning4j