Devang Kulshreshtha

[Google Scholar] [LinkedIn]

PERSONAL DETAILS

E-Mail	devang.kulshreshtha@mail.mcgill.ca
Phone	+91 9621 633 895
Position	M.Sc. at McGill University, MILA Lab

EDUCATION

McGill University, Montreal 2020 - present
M.Sc. in Computer Science (GPA: 4.0/4.0)
Indian Institute of Technology (BHU) Varanasi 2014 - 2018
B.Tech. Computer Science (GPA: 9.11/10.0)

PEER-REVIEWED PUBLICATIONS

- **How emotional are you? Neural Architectures for Emotion Intensity Prediction in Microblogs** [Paper] [Presentation] [Code]
  Devang Kulshreshtha*, Pranav Goel*, Anil Kumar Singh.
  International Conference on Computational Linguistics (COLING) 2018

- **NLPRL-IITBHU at SemEval-2018 Task 3: Combining Linguistic Features and Emoji pre-trained CNN for Irony Detection in Tweets** [Paper]
  Harsh Rangwani, **Devang Kulshreshtha**, and Anil Kumar Singh.
  SemEval Workshop, NAACL-HLT 2018

- **Feature Augmented Deep Neural Networks for Collaborative Filtering** [Paper][Code]
  Devang Kulshreshtha.
  IJCAI 2017 Workshop on AI Applications in E-commerce

- **Prayas at emoint 2017: An ensemble of deep neural architectures for emotion intensity prediction in tweets.** [Paper][Presentation]
  Pranav Goel*, **Devang Kulshreshtha***, Prayas Jain and K.K. Shukla.
  8th WASSA Workshop at EMNLP 2017 (Shared Task Winner!)

RESEARCH AND PROFESSIONAL EXPERIENCE

MITACS Research Project: Korbit.AI, Montreal, Canada Sept 2020 - Dec 2020
Supervisors: Prof. Siva Reddy and Dr. Iulian Vlad Serban

- Building auto-regressive transformer models for generating question answer exercises from educational texts. Current focus is on domain-adaptation techniques for Question Generation, and creation of QA dataset in Stats/ML domain.

Software Engineer: Amazon, India Sept 2018 - Sept 2020
Team: Optimus Carrier Financials, Middle Mile Technologies

- Designed scalable monitoring system that tracks carrier invoices at various systems and report anomalies using rule-based detection mechanisms. Part of a major team initiative for migrating services from coral to NAWS.

Research Intern: INRIA Labs, France May 2018 - July 2018
Supervisors: Prof. Alexandre Termier and Prof. Elisa Fromont

- Explored discriminative pattern mining techniques to identify neurons in DNNs frequently activated on wrong output. Proposed adoptions to 'Activation Maximization' to identify such patterns, and use their activation as a signal to warn mistake during test time. Improved results on MNIST, LeNet-5 by 1%.

Software Engineer Internship: Amazon, India May 2017 - Jul 2017
Project: Mobile Development of Onboarding Flow

Data Science Intern: Busigence, India Dec 2016 - Jan 2017
Project: Constructing deep learning framework for e-commerce recommender systems

Research Intern: CFILT Lab, IIT Bombay May 2016 - July 2016
Supervisors: Prof. Pushpak Bhattacharya and Prof. Ganesh Ramakrishnan

- Developed an end-to-end search engine add-on from scratch that presents Pseudo-Documents and facets for resource scarce languages in case of transactional queries.

UNPUBLISHED REPORTS

- **Modeling Anomaly Detection with a Deep Boltzmann Machine** [Paper]
  Devang Kulshreshtha*, and Kaushal Kumar Shukla.
  Accepted at ESANN 2018 but not sent for publication.
- **Pseudo Documents for Resource Scarce Languages** [Paper]
  Maulik Vachhani*, **Devang Kulshreshtha***, Arjun Atreya, Pushpak Bhattacharyya and Ganesh Ramakrishnan.

TEACHING

Teaching Assistant Spring 2018
Introduction to Artificial Intelligence
Indian Institute of Technology (BHU) Varanasi
Teaching Assistant Fall 2016
Introduction to Programming in C
Indian Institute of Technology (BHU) Varanasi

AWARDS AND SCHOLARSHIPS

- Selected for onsite interview at Zurich, Switzerland for Google AI Brain Residency Program 2019.
- Received 1500 USD from Microsoft Research India as Travel Grant to attend COLING 2018.
- Winning team in shared task on Emotion Intensity Prediction and invited for an oral talk at WASSA EMNLP 2017 conference at Copanhagen, Denmark.
- Among the top 10 finalists in the Amazon Code Wizard Challenge 2017 and single finalist from IIT Varanasi.
- Received about USD 700 from IIT (BHU) Varanasi as Travel Grant to attend IJCAI 2017.
- Ranked 1st in Enigma (Machine Learning contest) held in CodeFest '16 (IIT BHU CSE Fest).

RELEVANT COURSES

- **McGill University -** Applied Machine Learning (COMP551), Natural Language Processing (COMP550), Mathematics for Computer Science (COMP761)
- **IIT Varanasi -** Probability and Statistics (MA202), Artificial Intelligence (CS202), Computer Vision (CS352)