Athiya Deviyani

CONTACT INFORMATION

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RESEARCH INTERESTS

Machine Learning, Computational Linguistics, and Applied Computer Vision with a focus in Fairness, Accountability, Transparency, and Ethics (FATE).

EDUCATION

Carnegie Mellon University, Pittsburgh, PA, United States
M.S. in Artificial Intelligence and Innovation, GPA: 4.07 August 2021 - May 2023

- Academic advisor: Dr. Michael Shamos
- Research advisor(s): Dr. Alan W. Black, Dr. Maarten Sap
- Relevant courses: Advanced Deep Learning, Advanced NLP, Machine Learning with Large Datasets, Computational Ethics for NLP, Deep Reinforcement Learning

University of Edinburgh, Edinburgh, United Kingdom
B.S. in Artificial Intelligence and Computer Science, GPA: 4.00 September 2017 - May 2021

- Academic award: 2021 Class Prize for Artificial Intelligence and Computer Science
- Honors thesis: Assessing Dataset Bias in Computer Vision (received outstanding classification)
- Research advisor(s): Dr. Ajitha Rajan, Dr. Hakan Bilen, Dr. Steven R. Wilson
- Relevant courses: Machine Learning, Foundations of NLP, Automatic Speech Recognition

PUBLICATIONS

Men Have Feelings Too: Debiasing Sentiment Analyzers using Sequence GANs
Athiya Deviyani*, Haris Widjaja*, Mehak Malik*, Daniel Hoskins*
In submission to the *NLP for Positive Impact Workshop* at EMNLP 2022

Text Normalization for Speech Systems for All Languages
Athiya Deviyani*, Alan W. Black
Accepted to the *Speech for Social Good Workshop* at INTERSPEECH 2022

Assessing Dataset Bias in Computer Vision
Athiya Deviyani*
Outstanding Informatics Undergraduate Dissertations, The University of Edinburgh 2021

ACADEMIC RESEARCH EXPERIENCE

Language Technologies Institute, Carnegie Mellon University, Pittsburgh, PA, United States
Graduate Research Assistant December 2021 - present

- Conducted research under Dr. Alan W. Black to build a tool for generalizable text normalization for speech synthesis using the Flite synthesizer and a Python backend to be published in the Speech for Social Good workshop at INTERSPEECH 2022
- Performed a thorough analysis on various text to image diffusion models (DALLE2, StableDiffusion) for gender, race, and age-related biases using Visual Question Answering and object detection models under Dr. Maarten Sap

SMASH Lab, The University of Edinburgh, Edinburgh, United Kingdom
Research Assistant June 2020 - March 2021

- Worked with the Social Media Analysis and Support for Humanity (SMASH) research group on a project involving Natural Language Processing (GenSim, FastText, SpaCy) and a variety of Machine Learning classification techniques (SciKit Learn) to expand psycholinguistic lexicons for improved coverage of online slang in social media data using the UrbanDictionary corpus

Working Experience

Apple, Seattle, WA, United States
Applied Machine Learning Research May 2022 - August 2022

- Implemented and evaluated a GraphSAGE Graph Neural Network (GNN) with a recall at 3 rate (R@3) of 0.147 using the Deep Graph Library (DGL) framework and PyTorch to suggest related questions to be used in various applications such as Siri search and web answers
- Conducted experiments on the effect of implementing diversity penalties on beam search to diversity and perplexity of query suggestions using distributed training paradigms

Goldman Sachs, London, United Kingdom
Summer Analyst June 2021 - August 2021

- Designed and implemented a data processing pipeline for capital reporting and analysis under the finance engineering team

Google, London, United Kingdom
Software Engineering Intern June 2020 - September 2020

- Worked on a project within the Geo team specializing on Timeline for Google Maps, which involves implementing an algorithm that selects a user's interesting visits within a selected time frame

Google, Zurich, Switzerland
Software Engineering Intern July 2019 - September 2019

- Worked on an end-to-end project within the YouTube Creator Commerce team specializing on Growth and User Engagement to create a Channel Shop Tab for creators

Honors and Awards

Class Prize for Artificial Intelligence and Computer Science (highest overall GPA)	2021
Outstanding Informatics Undergraduate Thesis	2021
Best Health Hack at Big Red Hacks 2021	2021
1st place Transferwise challenge at HackCambridge4D	2019
2nd place overall and 3rd place Amazon AWS challenge at OxfordHack	2018

Teaching Experience

Carnegie Mellon University, Pittsburgh, PA, United States
Graduate Teaching Assistant August 2021 - present

- Provided office hours, co-delivered lectures and recitations, designed and marked assignments for the following graduate courses: 11-631 Data Science Seminar (Prof. Eric Nyberg, Fall 2021), 11-737 Multilingual Natural Language Processing (Prof. Graham Neubig, Spring 2022), 10-617 Intermediate Deep Learning (Prof. Ruslan Salakhutdinov, Fall 2022)

The University of Edinburgh, Edinburgh, United Kingdom
Graduate Teaching Assistant August 2021 - present

- Lab demonstrator for Foundations of Data Science (INFR08030), Introductory Applied Machine Learning (INFR10069, INFR11152), and Cognitive Science (INFR08020) at the University of Edinburgh, and tutor and marker for Introductory Applied Machine Learning (INFR10069, INFR11152), Software Testing (INFR10057)

Volunteering and service

Machine Learning Instructor at Bangkit Academy	2020-2021
Data Science Instructor and Curriculum Organizer at Generation Girl	2020-2021
Python and Web Development Instructor at CodeFirstGirls	2020-2021

Skills and Interests

Technical: Python (Tensorflow, PyTorch), Java, Haskell, SQL, JavaScript, C++, Isabelle, MATLAB
Languages: Indonesian (native), English (professional), Mandarin (beginner)
Interests: Piano and Violin (ABRSM Grade 5), Vocal, Dance, Guitar, Muay Thai, Kickboxing