Pranav **A**

CV AND NLP RESEARCH SCIENTIST AND ENGINEER

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Experienced data scientist who has published in top tier competitive conferences in NLP.
Highly proficient in Deep Learning and well familiar with NLP as a research field.
Implemented many data science projects in various startups.
Lead D&I programs in volunteer based organizations.

Experience ──────────────────────────────

Miro AI   *Hong Kong*
SENIOR DATA SCIENTIST   *Jan 2021 - Present*

- Implemented highly efficient Bib detectors for cycling and running races
- Implemented deep learning based classifiers for demographic attributes like age and gender.
- Implemented similarity search based algorithms for roster identification
- Developed novel algorithms for unsupervised clustering and fast string matching

Sentinel AI   *Estonia*
NLP RESEARCHER   *Jul 2020 - Dec 2020*

- Developed novel algorithms for evidence retrieval for news fact-checking.
- Implemented algorithms on multi-modal fact checking, especially on ASR and videos.
- Developed algorithms for deepfake classifiers with explainability on image manipulation

Dayta AI   *Hong Kong*
MACHINE LEARNING LEAD   *Jul 2018 - Jul 2020*

- Implemented highly efficient systems on person re-identification and detection for videos.
- Implemented deep learning based classifiers for demographic attributes like age and gender.
- Developed question answering systems for Traditional Chinese based text corpora.
- Developed script conversion methods for conversions between Traditional Chinese and Simplified Chinese.
- Developed paraphrasing systems for Traditional Chinese based news texts

Education ──────────────────────────────

Hong Kong University of Science and Technology   *Hong Kong*
MASTERS IN BIG DATA TECHNOLOGY   *Sep. 2017 - Sep. 2018*

- Awarded entrance scholarship for top performance.
- Top 15% of the class. *Detailed list of exams and projects are available here (Link)*

VIT University   *India*
BACHELORS IN COMPUTER SCIENCE AND ENGINEERING   *Sep. 2013 - Sep. 2017*

- Consistently awarded high performing awards in academics
- THESIS: Exploration of Heuristics in IR in Applications of Approximate String Similarity (Link)

Volunteer Experience and D&I advocacy ──────────────

NAACL 2021
SENIOR D&I CHAIR

- Highly prestigious position in a top-tier NLP conference
- Implemented several D&I measures including finanical access, D&I awareness programs, established forums for research and affinity group socials, worked on increasing accessibility for conferences.
- Coordinated and helped in organizing various affinity groups including Black in AI, Queer in AI, Masakhane and North Africans in NLP.

Queer in AI
CORE ORGANIZER

- Working on D&I and safety initiatives
- Helped in organizing many socials in top-tier conferences for facilitating in discussions and cohort forming

SIGTYP

Core Member

- Editor of SIGTYP newsletter, which summarizes latest research in multilinguality and typology.
- Host of SIGTYP lecture series and fall SIGTYP workshop

Notable Projects and Publications

Check out my github repository *pranav-ust* for more projects and resources.

2kenize: Tying Subword Sequences for Chinese Script Conversion

arXiv Link, published in ACL 2020

- First authored paper published in extremely competitive top-tier NLP conference, ACL 2020
- Work done on increasing accessibility to Traditional Chinese and HongKongese.
- Developed script conversion methods for converting between Chinese scripts.
- Developed state of the art classifiers for topic classification in Chinese NLP.

Making Conferences Queer Friendly

Link, work published with Queer in AI

- Work to appear in Widening NLP 2021
- Outlining best practices for making conferences queer-friendly, which include inclusive designs of registration forms and virtual spaces, strengthening queer diversity and developing trans-inclusive publication workflow.

Bit Partitioning Schemes for Multicell Zero-Forcing Coordinated Beamforming

arXiv Link, published in ICIIS 2017

- Awarded best undergrad paper
- Optimization methods developed for bit partitioning in network cells.

Inflo: News Categorization and Keyphrase Extraction in an Aggregation System

arXiv Link

- Automatic keyphrase extraction and topic classification for news articles. Developed novel algorithms for implementation.

Exploration of Proximity Heuristics in Length Normalization

arXiv Link

- Exploring heuristics such as length similarity for retrieval systems.

BREAK, MAKE and TAKE: An Information Retrieval Approach

arXiv Link

- Work based off undergrad thesis.
- Work on fast string retrieval methods using subword tokenization and graphical similarity.

Alignment Analysis of Sequential Segmentation of Lexicons

Publication Link

- Work based off undergrad thesis.
- Retrieving similar cognates in cross lingual applications using subword tokenization and graph similarity
- Published in ACL-SRW 2018

Keyword Extraction and Classification in Scientific Documents

Repository Link

- Usage of SciBERT to identify keyword boundaries and classify them onto scientific terminologies.

Security Analysis of Bitcoin Transactions through Statistical Graph Annotation

Repository Link

- Work done for Blockchain course in HKUST
- Developed transaction parsing algorithms. This is used for fraud detection using graphical flow methods.

Skills

Proficient in   Python, LaTeX, Pytorch, Bash Scripting, Git, Cloud Based Systems (AWS and GCP)
Familiar with   R, Tensorflow, MySQL, C++, PySpark, Data Visualization platforms (Tableau, d3.js)
Research Interests   Natural Language Processing, Ethics in AI, Computer Vision

Awards

2020   **Finacial Award**, ACL 2020 scholarship for research presentation
2019   **Finacial Award**, NAACL 2019 scholarship for research presentation
2018   **Finacial Award and Travel Grants**, ACL 2018 scholarship for research presentation
2017   **Entrance Scholarship**, HKUST, for outstanding academic performance
2017   **Best Undergrad Paper**, ICIIS for outstanding undergrad presentation
2017   **Best Thesis Award**, VIT University, for outstanding thesis
2013-17   **High GPA awards**, VIT University, for outstanding academic performance

Program Committees

2021   **Journal Reviewer**, Computer Speech and Language
2020   **Session Chair**, AACL Student Research Workshop 2020
2020   **Event Organizer at COLING**, D&I in NLP
2020   **Mentor**, Widening NLP 2020
2019   **Reviewer**, NAACL Student Workshop 2019
2020   **Reviewer**, AACL Student Workshop 2020
2019   **Reviewer**, ACL Student Workshop 2019