# Tanaya Babtiwale

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#### Education

University of Washington, Seattle

Sep 2022 - Present

Masters of Science, Computational Linguistics (NLP)

Seattle, WA

• Relevant Courses: Deep Techniques in NLP, Shallow Techniques in NLP, Syntax Engineering, Semantic Theory

NMIMS University

Jul<br/> 2016 - Aug 2020

Bachelor of Technology, Computer Engineering

Mumbai, India

• Relevant Courses: Advanced Database Management, Predictive Modeling, Artificial Intelligence, Distributed Computing, Object Oriented Software Engineering, Data Structures, Design and Analysis of Algorithms

Skills

Programming Languages: Python, Java, Web Ontology Language

Tools & Frameworks: PyTorch, Tensorflow, Keras, Huggingface, Scikit-learn, RASA, Protegé, RDF Data Operations: SQL, MongoDB, ElasticSearch, Apache PySpark, SPARQL, NoSQL, SAS, Tableau

Development: AWS, CUDA, Django, Docker, CI/CD, Git, Data Version Control, UNIX OS (MacOS), Linux OS

#### Experience

 $\textbf{Haptik} \hspace{35mm} \text{Nov } 2020 - \text{Sep } 2022$ 

Machine Learning Engineer - II

Mumbai, India

- Developed and scaled over 10 features like multilingual entity detection and question-answering engine in ML stack (Django, AWS) to get dialogue systems to 85% automation rate for over 10 million queries daily across 400 clients
- Conducted research in deep learning domain with PyTorch, Sentence Transformers, GPT3, ByT5 on projects like end-to-end dialogue policy, one-shot intent detection, inverse text normalization, and article search & retrieval

IBM Research Labs - AI

May 2020 – Aug 2020

Research Intern

 $Bangalore,\ India$ 

- Derived semantic meaning representations from knowledge graphs to interpret implicit intent from BI queries
- Built a state-of-the-art NLIDB framework with OWL ontology reasoners in Java, and published it at COLING 2020

Mahindra and Mahindra

May 2019- Jul 2019

Summer Intern - AI

Mumbai, India

- Deployed business card information extraction for in-house visitor management using Tesseract OCR & XGBoost
- Collaborated on Mood-o-meter: a chatbot to gauge employee sentiments built employing RASA and Dialogflow

**Episodic Labs** 

May 2018- Jul 2018

Intern - Natural Language Processing

Ahmedabad, India

• Generated game commentary for cricket using LSTM for NLG task from real-time statistics captured by BEMRR

## Research Projects

Bringing Advances of NLP to Marathi | Undergraduate Thesis

NMIMS University

• Performed NER, Sentiment Analysis, and News Classification in Marathi language by designing custom BERT based neural network architecture, and deployed an Android application for it with OCR for Devanagri script

### Publications

COLING 2020 - Schema Aware Semantic Reasoning for Interpreting Natural Language Queries

ICCUBEA (IEEE) 2019. Capsule Networks for Semantic Segmentation

(preprint) HDIAL: Dataset for granular benchmarking of dialogue system on recurring linguistic phenomena

#### Memberships

Women Who Code (WWCode)

Director, Mumbai

#### Certifications

Phonetics and Phonology

University of Mumbai

AI: Search Techniques for Problem Solving (First Class)

NPTEL, Indian Institute of Technology- Madras

Academic Alliance, Cloud Infrastructure and Services v2 - Cloud Certification

Dell EMC

Lean Six Sigma - Green Belt

**KPMG** 

## $\mathbf{A}\mathbf{wards}$

Award of Excellence for integrating information extractor with the product

Haptik, 2021

Winner - Science Slam, an intern-wide competition for research presentations

IBM Research Labs, 2020

First Runner-up - University's Android Competition for presenting Eyelog

NMIMS, 2018