

Abhishek Nilesch Shah

abhisheknshah10@gmail.com • <https://ans10.github.io/abhishek> • +1-732-456-3170

Experience

IBM Watson

NEW YORK, NEW YORK

Jun '17 – Present

Advisory AI Software Engineer - Watson Assistant Core Algorithms

- Designed and developed [universal language entity extraction](#), released as a beta feature of Watson Assistant.
- Developed a [spellcheck service](#) for Watson Assistant to auto-correct incoming user sentences.
- Researched and implemented microservices for [show recommendations feature](#) enabling users to bootstrap conversational agents efficiently by searching chat logs.
- Enriched semantic (AMR) parser that beat then state of the art system. (3rd paper in Publications section)
- Improved and maintained microservices for [Natural Language Understanding](#) supporting intent detection and entity extraction that work across 13 languages.
- Implemented tools to support content-curation and management across 6 languages and 4 industrial domains hosted as part of [Content Catalog](#) in Watson Assistant.
- Developed a prototype of history store for service desk and channel-based [integrations](#).

IBM Watson

AUSTIN, TEXAS

Jun '16 – Aug '16

Software Engineer Intern

- Implemented a system for analyzing risks by comparing performance of two relation extraction systems of Watson and proposed two new hybrid models.
- Designed backend application with enhanced retrieval capability that helped solution architects and cloud practitioners search important documents.

Hewlett-Packard (HP)

BANGALORE, INDIA

Aug '14 – Jun '15

Research and Development Engineer

- Implemented a proof of concept for task of developing platform independent test framework for firmware code of printers using C# and CIL, scaling it to perform 1000+ unit tests.
- Managed SNMP services of the System Framework of large scale enterprise Laserjet HP Printers.

Information Retrieval Lab, DA-IICT

GANDHINAGAR, INDIA

May '13 – May '14

Research Assistant

- Designed, implemented and analyzed Temporal Information Retrieval Engine and Temporal Intent Classification system with 2nd best result for NTCIR Workshop. (5th paper in Publications section)
- Implemented [test framework](#) for data extraction to analyze language understanding of non-native user.

CheckDeck

GANDHINAGAR, INDIA

May '12 – Jun '12

Software Engineer Intern

- Designed and implemented search module of News Retrieval System using Apache Solr Framework for the first prototype and evaluated the performance for 100+ custom queries.
- Implemented clustering module of news articles shown as categories of news in the initial version of application.

Education

New York University (NYU), Courant Institute of Mathematical Sciences

NEW YORK, NEW YORK

M.S., Computer Science (3.89/4.0)

Sep '15 – May '17

Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT)

GANDHINAGAR, INDIA

B.Tech., Information and Communication Technology (8.08/10.0)

Aug '10– May '14

Publications

- Lin Pan, Chung-wei Hang, Haode Qi, *Abhishek Shah et. al.*: Multilingual BERT Post Pretraining Alignment [\[pdf\]](#)
- Neil Mallinar, *Abhishek Shah*, TK Ho et. al.: Iterative Data Programming for Expanding Text Classification Corpora, Emerging Application Track at AACL, 2020 (Co-presented at AACL, New York, NY, US, 2020) [\[pdf\]](#)
- Tahira Naseem, *Abhishek Shah et. al.*: Rewarding Smatch: Transition-Based AMR Parsing with Reinforcement Learning, Paper accepted at ACL, Florence, 2019 [\[pdf\]](#)
- Neil Mallinar, *Abhishek Shah et. al.*: Bootstrapping Conversational Agents With Weak Supervision, Emerging Application Track at AACL, 2019 (Co-presented at AACL, Hawaii, US, 2019) [\[pdf\]](#)
- *Abhishek Shah et. al.*: Andd7 @ NTCIR-11 Temporal Information Access Task, NTCIR, Japan, 2014 [\[pdf\]](#)

Skills

Programming Languages: Python, Java, C++, C#, Scala, Javascript (using Typescript), Groovy

Frameworks and Libraries: PyTorch, DyNet, Spacy, Elasticsearch, Apache Kafka, Node.js, Protobuf, Pandas, Sklearn, IBM (Deep Learning as a Service, Cloud Object Storage, Cloud Functions), Kubernetes, Docker, PostgreSQL, Snorkel

Tools and IDEs: Vim, Tmux, PyCharm, Git, IntelliJ, Visual Studio, Jenkins

Awards: Received IBM Patent Issuance Award and Plateau award. (Given for filing 4 or more patents)