Abhishek Nilesh Shah

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Experience

IBM Watson — New York, New York
Advisory AI Software Engineer - Watson Assistant Core Algorithms — *Jun '17 – Present*
- 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
Software Engineer Intern — *Jun '16 – Aug '16*
- 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
Research and Development Engineer — *Aug '14 – Jun '15*
- 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
Research Assistant — *May '13 – May '14*
- 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
Software Engineer Intern — *May '12 – Jun '12*
- 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 AAAI, 2020 (Co-presented at AAAI, 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 AAAI, 2019 (Co-presented at AAAI, 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)