

Naushad UzZaman

NLP Research Engineer at Nuance Communications

naushadzaman@gmail.com

Summary

Naushad UzZaman, PhD, completed his Bachelors in Computer Science from BRAC University, Bangladesh with Vice Chancellor's Gold Medal. Then he attended University of Rochester where he received his Masters and PhD degrees. Naushad has an extensive academic and industrial background representing innovative accomplishments in the area of Artificial Intelligence. He authored more than twenty five scientific articles and worked in the research divisions of renowned companies such as Microsoft, Yahoo! Research and Bosch. He is currently working as a Research Engineer at Nuance Communications in Burlington, MA. More information about Naushad can be found at: www.naushad.uzzaman.com.

Specialties: Artificial Intelligence, Big Data Analysis, Data Mining, Natural Language Processing/Understanding, Social Media Text Analysis, Information Extraction, Temporal Information Processing, Dialog Assistant, and Medical NLP.

Experience

NLP Research Engineer at Nuance Communications

July 2012 - Present (1 year 6 months)

Department: R&D - NLP Research

Division: Mobility

Group: NLU Core Architecture and Data Mining group

- Designed and prototyped different modules of new architecture dialog assistant.
- Explored the possibilities of using query logs and twitter for data mining at Nuance.
- Automatically extracted named entities from just a few seed examples and lots of tweets or logs.
- Automatically clustered similar queries and similar named entities from query logs.
- Designed the ontology for named entities.

Graduate Assistant at University of Rochester

September 2007 - July 2012 (4 years 11 months)

Temporal Information Extraction: We implemented hybrid systems with linguistically motivated solutions and machine learning classifiers for extracting temporal information from raw text.

Temporal Evaluation: We proposed a new method for evaluating systems that extract temporal information from text.

Temporal Question Answering: We proposed a temporal QA system performing temporal reasoning and

show how it can be used to evaluate automated temporal information understanding.

Creating 500K word corpus with temporal annotation and organizing TempEval-3: We automatically annotated a 500K word corpus from news domain by merging system outputs and human-reviewing a portion of it. We organized TempEval-3 with that corpus.

Multimodal Summarization: We worked on illustrating complex sentences as multimodal summaries combining pictures, simple sentence structure and summarized text.

Details: <http://www.cs.rochester.edu/u/naushad/#PhdResearch>

Graduate Student at University of Rochester

September 2007 - July 2012 (4 years 11 months)

Graduate Student, Department of Computer Science

Research Intern at Yahoo! Research

May 2011 - August 2011 (4 months)

I explored the use of social media for game prediction. Our system reliably extracted predictions from tweets, identified the predictive power of individual users, ranked predictions and aggregated them to find the most likely outcome of upcoming games. We evaluated our results on the 2010 FIFA World Cup tournament using a corpus of over 1.8 billion tweets containing over hundred-fifty thousand predictions. A key benefit of our system is that it does not rely on domain dependent knowledge for prediction, rather extracts people's predictions from social media. As a result, the framework can be used to predict the outcome of other sport events, elections, product release dates and any other future events discussed in the social media.

1 recommendation available upon request

Research Intern at Microsoft Medical Media Lab (M3L)

June 2009 - August 2009 (3 months)

I implemented an Information Extraction tool that can learn different patterns from user's examples and extract the pattern instances from natural language texts in medical documents, e.g. release notes, radiology reports, etc. For pattern matching, I used the medical ontology (UMLS) to understand medical patterns like diseases, medicines, etc. and other general language features. My implemented tool was shared with the clinical staff at Washington Hospital Center and they found it useful.

2 recommendations available upon request

Research Intern at Robert Bosch Corporation, Research and Technology Center

May 2008 - August 2008 (4 months)

- In-Car Dialog System: I developed a syntactic and semantic grammar for a commercial in-car dialog system. It was very similar to the famous iPhone's dialog assistant Siri. My work was in navigation, local business and MP3 domain.
- Data Mining Projects: I worked on a large scale data mining problem for KDD cup 2008: Breast Cancer Detection. I experimented with different machine learning techniques, e.g. Support Vector Machine (SVM), Decision Tree, KNN, Bayes Net, Neural Network, etc. Finally built the system using SVM and also

implemented the Feature Selection technique to improve the performance and reduce the computation time. Additionally, I worked on a recommendation system for Netflix contest.

1 recommendation available upon request

Research Programmer at Center for Research on Bangla Language Processing, BRAC University

June 2005 - June 2007 (2 years 1 month)

- Conducted research on Bangla language processing and implemented the research output. Published five papers and released three toolkits based on this work.
- Supervised undergraduate students and collaborated with them in different research projects. This led to collaboration on six papers with seven undergraduate students.

Co-Instructor at CSE Department, BRAC University

January 2007 - May 2007 (5 months)

Co-Instructor (Laboratory Instructor), Natural Language Processing

- Designed and instructed Natural Language Processing courses lab module (50% of the course)
- Supervised and designed the course projects for the lab

Also: January 2006 to May 2006

Intern Research Programmer at Center for Research on Bangla Language Processing, BRAC University

January 2005 - May 2007 (2 years 5 months)

- Conducted research on Bangla language processing and implement the research output

Teaching Assistant at CSE Department, BRAC University

September 2004 - December 2004 (4 months)

- Tutored Programming Language I (C) and Data Structure courses
- Conducted tutoring on an individual and group basis
- Helped students to understand the materials and improve their grades

Also: January 2004 to May 2004 and September 2003 to December 2003

Skills & Expertise

Natural Language Processing

Artificial Intelligence

Data Mining

Computer Science

Machine Learning

Computational Linguistics

Information Extraction

Research

Natural Language Understanding

Text Mining

Pattern Recognition
Human Computer Interaction
Sentiment Analysis
Information Retrieval
Python
Language Technology
Algorithm Design
Programming
Photography
Text Processing
Big Data

Education

University of Rochester

PhD, Computer Science, 2007 - 2012

University of Rochester

MS, Computer Science, 2007 - 2008

BRAC University

BSc, Computer Science, 2001 - 2005

Activities and Societies: • Founding President, BRACU Alumni, BRAC University Alumni Association, 2006 - 2007

• Secretary, BUCC (BRAC University Computer Club), Fall 2002 - Spring 2003

Faujdarhat Cadet College

High School, Science, 1995 - 2001

Activities and Societies: • Life Member, OFA (Old Faujian's Association), alumni association of Faujdarhat Cadet College, Chittagong, Bangladesh, 2005 - present

• Batch representative, 42nd Batch, Faujdarhat Cadet College in OFA, Old Faujian's Association, 2001 - 2003

Honors and Awards

- University of Rochester Scholarship & Assistantship, 2007 - 2012.
- 3rd prize at University of Rochester's Center for Research Computing poster session (May 2011).
- Vice Chancellor Gold Medal, 2006 - awarded for the best academic performance among all undergraduate students at Computer Science department, BRAC University, Bangladesh.
- Recipient of scholarship from BRAC University in the undergraduate program (full tuition waiver) - awarded in recognition of excellence in the Higher Secondary Certificate examination and the performance at BRAC University, 2001 - 2005.
- Ranked 12th (out of roughly 40 thousands examinees) in the combined merit list (Chittagong education board) of Higher Secondary Certificate examination, 2001.
- Board merit scholarship from the Ministry of Education, Government of Bangladesh - awarded in recognition of excellence in the Higher Secondary Certificate examination, 2001.

Interests

Artificial Intelligence, Big Data Analysis, Data Mining, Natural Language Processing/Understanding, Social Media Text Analysis, Information Extraction, Temporal Information Processing, Dialog Assistant, and Medical NLP.

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4 people have recommended Naushad

"Naushad has been an intern with my group at Yahoo! Research in Barcelona during the summer of 2011. Naushad has been very effective in his work, enthusiastic, driven and a very hard worker, and at the same he brought new ideas to the table. He has shown above average performance even among the select group of interns we receive."

— **Peter Mika**, *Researcher, Yahoo! Research Barcelona*, managed Naushad indirectly at Yahoo! Research

"Naushad was a great intern at Microsoft. Hard working, creative, knowledgeable and eager to research solutions. He built clever and great tools that were valued by end-users. He was a pleasure to work with."

— **Hank Rappaport**, *Program Manager, Microsoft*, managed Naushad indirectly at Microsoft Medical Media Lab

"I had an opportunity to work with Naushad when we were developing a user friendly NLP system to extract structured data from unstructured medical notes. The system was designed for the end users (medical doctors) to be able to build extraction agents quickly without the need for a large corpus of annotated data and reduce the training lag. Naushad showed exemplary abilities in handling the project independently and adapted well to the quick iteration prototyping environment. He is well informed in his area of expertise, has a pragmatic problem solving approach, is a great team player and is empathetic to the needs of the end-users. I would strongly recommend Naushad for results driven NLP / Machine learning research and development."

— **Prabhdeep Singh**, *Innovation Manager, Microsoft*, managed Naushad at Microsoft Medical Media Lab

"Naushad worked with me as a summer intern at Bosch research. He was hard working, energetic and a fast learner. He achieved much more than the original goal. During the 3 months as an intern, Naushad has worked on recommendation system for Netflix contest, and participated in KDD cup where we built machine learning algorithms on large medical data. In addition, Naushad worked on our natural language dialog system that was deployed into commercial products. Naushad is easy going and fun to be around. I highly recommend Naushad. He will be a great asset to any organization he chooses to join."

— **Junling Hu**, *Manager of data mining group, Bosch Research*, managed Naushad at Robert Bosch Corporation, Research and Technology Center

[Contact Naushad on LinkedIn](#)