Dear Prof. Demsky,

Thanks a lot for your interest. In my MSc Thesis, I have worked on memetic algorithms. For my graduate research, I am mainly aiming for working in machine learning and its application in relevant domains.

I had a look at your group’s work and found it interesting. I was wondering whether you are planning to apply Machine Learning in any of your projects in future. It will be helpful for me to know how I can contribute (and prepare) to your future/current projects. Also, I have completed a relevant course, Programming Languages and Systems ([Course Website](http://rifatshahriyar.github.io/CSE6305.html)), during my M.Sc, which may help me to build the background to work on your line of research.

Thanks a lot. Have a nice day.

dgoldwas AT purdue DOT edu

Fall 2018 - Prospective Student - Abdus Salam Azad  
  
Dear Prof. Goldwasser,

This is Abdus Salam Azad, currently employed as a Assistant Professor in the [Department of CSE](https://cse.buet.ac.bd/) at Bangladesh University of Engineering and Technology (BUET). I have obtained my B.Sc. (July 2014, *CGPA: 3.95/4.0, Class Position: 3rd)* and M.Sc. (January 2017, *CGPA: 4.0/4.0*)) degrees from the same department. In my MSc Thesis I have worked on memetic algorithms which has been accepted in the [IEEE Transactions on Cybernetics](http://ieeexplore.ieee.org/document/7835722/).

For my PhD, I am interested in working on machine learning with an emphasis on natural language understanding (NLU) which matches your line of research. It will be a great opportunity for me to work with you. I have applied to Purdue University for Fall 2018. I really hope you will be kind enough to have a look on my application.

I am also providing some relevant information about me for a quick review and attaching my resume too for your consideration. Thanks a lot for your time. Have a great day.

Abdus Salam Azad

[Homepage](https://sites.google.com/view/azadsalam2611/home)

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| Undergraduation | July, 2014. CGPA: 3.95 out of 4.00. Class Position: 3rd |
| Masters | January, 2017 CGPA: 4 out of 4.00 |
| Employment | Lecturer, Dept. of CSE, BUET |
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| Selected Publication | **A. S. Azad**, M. M. Islam and S. Chakraborty, "A Heuristic Initialized Stochastic Memetic Algorithm for MDPVRP With Interdependent Depot Operations," in *IEEE Transactions on Cybernetics,* January, 2017(Impact Factor: 7.384) [URL](http://ieeexplore.ieee.org/document/7835722/) |
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| Selected Current Projects | Md. Saiful Islam, **Abdus Salam Azad**, [Shubhra Kanti Karmaker Santu](https://sites.google.com/site/kantishubhra006/), and [Mohammed Eunus Ali](https://sites.google.com/site/mohammedeunusali/), “Multi Objective Learning to rank for citation recommendation”, under preparation. |
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| GRE | 324 (Q:168, V:156, AWA:4) |
| TOEFL | 113 (R:30, L:30, S:26, W:27) |

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My research interests broadly span the field of Machine Learning (ML). In my MSc Thesis I have worked on memetic algorithms which has been accepted in the [IEEE Transactions on Cybernetics](http://ieeexplore.ieee.org/document/7835722/). After completing my M.Sc., I have started studying deep learning techniques and become familiar with libraries such as, Sci-kit Learn, WEKA, Tensor Flow, and Keras. Previously, I had completed two courses on machine learning in my undergraduate studies. I have also completed a Data Mining and an Image Processing course in my M.Sc. As parts of these courses and out of my self motivation, I have implemented a few learning algorithms myself and worked on problems such as, text classification, image retrieval, and Bangla character recognition. Currently, I am also working on a multi-objective learning to rank algorithm which can generate a list of relevant papers upon given an abstract of a research proposal. The research is jointly collaborated by BUET and the University of Illinois Urbana-Champaign.

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we are focusing on the problem of identifying fake and modified images in social media, without the reference to the original image. The research is jointly collaborated by BUET and University of Toronto.

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Currently, I am working on two different research projects in my university. In one of them, we are working on finding relevant papers from literature, upon given a research idea. The research team includes [Shubhra Kanti Karmaker](https://sites.google.com/site/kantishubhra006/) from UIUC and [Prof. Mohammed Eunus Ali](https://sites.google.com/site/mohammedeunusali/) from BUET. In the other project, we are trying to quantify the amount of editing done on an image. The research team includes Prof. [A. B. M. Alim Al Islam](https://sites.google.com/site/abmalimalislam/home) from BUET and Prof. [Syed Ishtiaque Ahmed](https://www.ishtiaque.net/publications) from University of Toronto.

When I first encountered this problem I had gone through some articles from [Richard Socher](http://www.socher.org/) and [Andrej Karpathy](http://cs.stanford.edu/people/karpathy/) from the research groups of [Christopher Manning](https://nlp.stanford.edu/manning/) and [Fei-Fei Li](http://vision.stanford.edu/feifeili/) from Stanford.

Dear Prof. ,

I have completed my M.Sc. (January, 2017 *CGPA: 4*) from the [Department of Computer Science and Engineering](https://cse.buet.ac.bd/) at Bangladesh University of Engineering and Technology. I completed my undergraduate studies (July, 2014. *CGPA: 3.95*. Class Position: 3rd) from the same.

→ Currently, I am working on the reading comprehension task under the supervision of Prof. [Islam](http://cse.buet.ac.bd/faculty/facdetail.php?id=mdmonirulislam). My work focuses on the MCTest Dataset released by Microsoft Research, where the task is to answer multiple choice questions based on fictitious short stories. We have modeled the problem as a game, where an agent upon given a question-answer pair traverses a graph which is constructed from the story by utilizing dependency parse trees and coreference resolution. We award points to such traversals based on their relevance with the given question-answer pair. The agent is trained by reinforcement learning so that it can gain highest points given the correct question-answer pair.

→ I am interested in applying deep learning techniques in the field of Natural Language Understanding. I went through your research interest and felt deeply motivated towards your works. In this regard, I would like to introduce myself as a prospective PhD candidate for Fall 2017 and I am looking for a potential research group where I can contribute to the field of NLU. I am providing some relevant information about me for a quick review and attaching my CV too for your consideration. Have a good day.

Quick Look into profile:

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| Undergraduation | July, 2014. CGPA: 3.95. Class Position: 3rd |
| Masters | January, 2017 CGPA: 4 |
|  |  |
| Selected Publication | **A. S. Azad**, M. M. Islam and S. Chakraborty, "A Heuristic Initialized Stochastic Memetic Algorithm for MDPVRP With Interdependent Depot Operations," in *IEEE Transactions on Cybernetics,* January, 2017 [URL](http://ieeexplore.ieee.org/document/7835722/) |
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| GRE | 324 (Q:168, V:156, AWA:4) |
| TOEFL | 113 (R:30, L:30, S:26, W:27) |

Backup:

Fall 2018 Prospective Student   
  
Dear Prof. Ali,

I am Abdus Salam Azad, currently employed as a Lecturer in the [Department of CSE](https://cse.buet.ac.bd/) at Bangladesh University of Engineering and Technology (BUET). I have obtained my B.Sc. (July, 2014. *CGPA: 3.95)* and M.Sc. (January, 2017 *CGPA: 4*)) degrees from the same department.

For one of my M.Sc. courses (in 2015) I studied about how to find relevant image-sentence pairs and got to know about your works. I studied your paper “Every Picture Tells a Story: Generating Sentences from Images” that you published back in ECCV'10. I was highly intrigued by the idea of mapping images and sentences into a shared embedding space. Since then, I started growing interest about the field of Image understanding and its intersection with Natural Language Understanding. Later on, I went through your recent research works and found your projects in PLATO very inspiring. In this regard, I would like to introduce myself as a prospective PhD candidate for Fall 2018.

Thanks a lot for your time. I am providing brief overview of my profile below. Eagerly waiting to hear from you. Have a good day.

**Overview of profile:**   
  
In my MSc Thesis I have worked with [Prof. Md. Monirul Islam](http://cse.buet.ac.bd/faculty/facdetail.php?id=mdmonirulislam). We have proposed a stochastic memetic algorithm which maintains the balance between exploration and exploitation by simultaneous focus on greediness and randomness. Our [work](http://ieeexplore.ieee.org/document/7835722/) has been accepted for publication in the IEEE Transactions on Cybernetics.

As my M.Sc. research is not directly aligned with my future interests, after completing my M.Sc. I started to study Machine Learning, especially deep learning techniques, e.g., CNN, RNN. Previously, I had completed two courses on Machine Learning and Pattern Recognition in my undergrad. I have also become familiar with libraries such as, Sci-kit Learn, WEKA, Tensor Flow, and Keras. Currently, I am working on two different research projects in my university including collaborators from UIUC and University of Toronto.

Quick Look into profile:

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| --- | --- |
| Undergraduation | July, 2014. CGPA: 3.95. Class Position: 3rd |
| Masters | January, 2017 CGPA: 4 |
| Employment | Lecturer, Dept. of CSE, BUET |
|  |  |
| Selected Publication | **A. S. Azad**, M. M. Islam and S. Chakraborty, "A Heuristic Initialized Stochastic Memetic Algorithm for MDPVRP With Interdependent Depot Operations," in *IEEE Transactions on Cybernetics,* January, 2017 [URL](http://ieeexplore.ieee.org/document/7835722/) |
|  |  |
| Current Projects | Md. Saiful Islam, **Abdus Salam Azad**, [Shubhra Kanti Karmaker Santu](https://sites.google.com/site/kantishubhra006/), and [Mohammed Eunus Ali](https://sites.google.com/site/mohammedeunusali/), “Multi Objective Learning to rank for citation recommendation”, under preparation for SIGIR 2018  Saad Manzur, **Abdus Salam Azad**, Ajoy Das, [Syed Ishtiaque Ahmed](https://www.ishtiaque.net), and [A. B. M. Alim Al Islam](https://sites.google.com/site/abmalimalislam/home) “InnerEye: An Automated Tool for Detecting the Extent of Image Editing to Aid Credible Social Interactions”, under preparation for The Web Conference, 2018 |
|  |  |
| GRE | 324 (Q:168, V:156, AWA:4) |
| TOEFL | 113 (R:30, L:30, S:26, W:27) |
|  |  |
| Other Skills | Java, Python, Scikit-learn, WEKA, Keras, Tensor Flow |
|  |  |
| CV, Transcripts | Attached |