

## Abu Awal Md Shoeb

PhD Student, Dept. of Computer Science  
Rutgers, The State University of New Jersey, USA  
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- Profile** Research experience in Big Data Job Scheduling using Kubernetes, Green Data Center, Cloud Computing (Amazon EC2, S3, Google Cloud), Cyber Security, Machine Learning, Bangla Computing, Proficient in Domain Hosting, Server Configurations, and Web Development
- Education**
- Rutgers University, New Brunswick, NJ**  
PhD in Computer Science, *Fall 2015 - present*
- University of Alabama at Birmingham (UAB)**  
M.Sc. in Computer and Information Sciences, *Spring 2015*  
Selected Courses: Security and Privacy in Cloud Computing, Computer Network Security, Cyber Security and Forensics, Knowledge Discovery and Data Mining
- Shahjalal University of Science and Technology (SUST), Bangladesh**  
B.Sc. in Computer Science and Engineering (GPA 3.70/4.00), August 2008
- Work Experience**
- Rutgers University, New Brunswick, NJ**  
*Teaching Assistant, Dept. of Computer Science, Fall 2015 - present*
- Douglass DIMACS Computing Corps (DDCC), Rutgers University**  
*Graduate Mentor, November 2015 - present*
- Criss Cross Computers, Bangladesh** (<http://www.crisscrossbd.com>)  
*Co-Founder, 2006 - present*
- Designed and implemented first ever e-payment system for students at SUST, a renowned public university in Bangladesh ([www.sust.edu/epayment](http://www.sust.edu/epayment))
- Nokia Bell Labs, Murray Hill, NJ**  
*Summer Intern, Summer 2017*
- Learned Kubernetes (K8) and deployed main components of Wyre (highly scalable chat application) under K8. The deployment includes the use of two main components of K8, Horizontal Pod Autoscaler (HPA) and the Custom Scheduler. This work leads to the placement and scheduling of deep learning training jobs under Kubernetes.
- MedSnap LLC, Birmingham, Alabama**  
*Software Engineer Intern, Summer 2014 and 2015*
- Medication Safety and Data Visualization that include performance analysis of OpenCV application in Amazon EC2, use of Amazon S3 for large image dataset and d3 JavaScript framework for data visualization.*
- University of Alabama at Birmingham (UAB)**  
*Research Assistant, SeCuRE and Trustworthy Computing Lab (SECRETLab), Fall 2013-Spring 2015*
- Shahjalal University of Science and Technology (SUST), Bangladesh**  
*Assistant Professor, Dept. of Computer Science and Engineering, June 2013 – August 2013*
- Dhaka Stock Exchange Ltd., Dhaka, Bangladesh**  
*External IT Consultant, February 2013 – June 2013*
- Member of an investigative team to identify the origin of the problem of new MSA Plus Trading software launched by Dhaka Stock Exchange Ltd.

**Center for Research Testing and Consultancy (CRTC), CSE, SUST, Bangladesh**  
Adjunct Faculty, July 2009 – July 2013

**Shahjalal University of Science and Technology (SUST), Bangladesh**  
Lecturer, Dept. of Computer Science and Engineering, July 2009 – June 2013

**Leading University, Sylhet, Bangladesh**  
Part Time Lecturer, May 2010 - April 2013

**Metropolitan University, Sylhet, Bangladesh**  
Part Time Lecturer, September 2011 - December 2011

**United Nations Development Programme (UNDP), Prime Minister's Office, Bangladesh**  
e-Service Programmer, December 2008 – June 2009

- *Designed and implemented framework of ICT services for different ministries of Bangladesh*
- Architectural and database design of freedom fighters web application of 1971 liberation war of Bangladesh

**Center for Research Testing and Consultancy (CRTC), CSE, SUST**  
Coordinator, August 2009 – June 2010

- Designed and implemented first ever mobile SMS based registration system for undergraduate admission test in Bangladesh

#### **Selected Publications**

- “Spam Campaign Cluster Detection Using Redirected URLs and Randomized Sub-Domains”, **Abu Awal Md Shoeb**, Dibya Mukhopadhyay, Shahid Al Noor, Alan Sprague, Gary Warner, Social Informatics 2014, December 14-16, 2014, Cambridge, MA, USA (**Best Paper Award**)
- “A Comparative Study on I/O Performance between Compute and Storage Optimized Instances of Amazon EC2”, **Abu Awal Md Shoeb**, Ragib Hasan, Md. Haque, and Meng Hu, IEEE Cloud 2014, June 27 – July 2, 2014, Alaska, USA
- “SUPara: A Balanced English-Bengali Parallel Corpus”, Md. Abdullah Al Mumin, **Abu Awal Md Shoeb**, Md. Reza Selim and Muhammed Zafar Iqbal, SUST Journal of Science and Technology (1682-895X), Volume 16, No. 2, 2012
- “An Extended Algorithm to Enhance the Performance of the Gridbus Broker with Data Restoring Technique”, **Abu Awal Md. Shoeb**, Altaf Hussain, Md. Abu Naser Bikas, Md. Khalad Hasan, (ICCET 2009), ISBN 978-1-4244-3334-6, Pages 371-375
- “Runtime Thread Rescheduling: An Extended Scheduling Algorithm to Enhance the Performance of the Gridbus Broker”, Altaf Hussain, **Abu Awal Md. Shoeb**, Md. Abu Naser Bikas, Md. Khalad Hasan, (ICCIT 2008), ISBN 978-1-4244-2135-0, Pages 80-87
- “File Based GRID Thread Implementation in the .NET-based Alchemi Framework”, Md. Abu Naser Bikas, Altaf Hussain, **Abu Awal Md. Shoeb**, Md. Khalad Hasan, Md. Forhad Rabbi, (12th IEEE INMIC 2008), ISBN 978-1-4244-2823-6, Pages 468-472

#### **Posters**

**Abu Awal Md Shoeb**, Hafiz Imtiaz, “Utilizing Hashtag in Opinion Mining and Sentiment Analysis for Customers Survey”, MASC-SLL 2016, April 2016, University of Pennsylvania, PA, USA

#### **Technical Reports**

- **Abu Awal Md Shoeb** and Shahab Raji, “Query Social Media (Twitter) with HashTag and Analyze them by using Microsoft Cognitive Services”, CS-674 Big Data Analytics and Text Mining, Rutgers University, Spring 2017
- **Abu Awal Md Shoeb**, “Position Paper – Is Private Browsing in Modern Web Browsers Really

*Private?*”, CS-553 Design of Internet Services, Rutgers University, Fall 2015

- **Abu Awal Md Shoeb**, “*Forensics Analysis of a Hard Drive using EnCase*”, CS-537 Cybercrime and Forensics, University of Alabama at Birmingham, Spring 2015

#### **Awards and Grants**

- Graduate Teaching Assistantship, Dept. of Computer Science, Rutgers University (Fall 2015 - Present)
- TA-GA Professional Development Fund, Rutgers University, Summer 2016 and 2017
- Graduate Mentor, Douglass DIMACS Computing Corporation, Rutgers University (November 2015 - Present)
- Best Paper Award in ASE International Conference on Social Informatics 2014, Harvard University, Cambridge, MA, USA (Dec 14-16, 2014)
- Dept. Travel Grant to attend ASE International Conference on Social Informatics 2014, Harvard University, Cambridge, MA, USA (Dec 14-16, 2014)
- Graduate Research Assistantship, University of Alabama at Birmingham (Fall 2013 – Spring 2015)
- For Mobile SMS Based Registration System of University Admission Test
  - Emerging Young Talents (for the year 2010 by the Prothom Alo, the most popular and leading daily newspaper in Bangladesh)
  - mBillionth South Asian Award, *July 2010*, <http://www.livemint.com/mbwinners.htm>
  - National e-Content Award, August 2010

#### **Extra Curricular**

- President, Rutgers Graduate Student Association (GSA), 2016 - 17
- Elected Syndicate Member, Shahjalal University of Science and Technology, Bangladesh
- Core Member, Bangladesh Open Source Network (BdOSN)
- Volunteer, Bangladesh National Mathematical Olympiad

#### **Computer Skills:**

Languages: C, Java, Python, PHP, JavaScript, MySQL, Oracle, PostgreSQL, Sqlite

Operating Systems: Windows, Macintosh, Ubuntu, Cent OS

Networking: Linux Server Configurations, Networking, Amazon EC2 and S3, OpenStack, cAdvisor

CMS: Joomla, Wordpress

Data Analysis Tools: JMP, WEKA, d3 JavaScript Framework

Others: Docker, Grafana, Latex, Gitorious, Web Technologies and Development

Computer Forensics Tool: EnCase

Orchestration Framework: Kubernetes