Afsana Hoque Chowdhury

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EDUCATION

- **North Carolina State University**
  B. S. in Electrical and Computer Engineering (Dual Degree)
  Anticipated Graduation: *May 2018*
  CGPA: 4.00/4.00 (Dean's List)
- **Bangladesh University of Engineering and Technology**
  B. S. in Electrical and Electronic Engineering
  Transfer Date: August 2015
  CGPA: 3.90/4.00 (Dean's List)

WORK EXPERIENCE

North Carolina State University, Raleigh, NC
Undergraduate Researcher | August 2017 – Present
- Investigate an FPGA accelerator, using IBM's CAPI capability that allows access to main memory.

North Carolina State University, Raleigh, NC
Teaching Assistant | February 2017 – May 2017 & August 2017 – Present
- Courses: Design of Complex Digital Systems (Fall'18), Fundamentals of Logic Design (Spring'17 & Fall'17)
- Help students build logic circuits, write Verilog code and troubleshoot.

Eaton Corporation, Boothwyn, PA
Power Systems Engineering Intern | May 2017 – August 2017
- Performed Short Circuit, Protective Coordination and Arc Flash Study; furnished Power System Study Report and printed Arc Flash Labels.
- Participated in on site PSE Data Collection.
- Built an automated Standard Data Request Template.
- Participated in customer visit and did PSE presentation for distributors.
- Obtained a working knowledge of IEEE 1584 and NFPA 70E.

NSF FREEDM Systems Center, Raleigh, NC
Undergraduate Researcher | May 2016 – May 2017
- Created load profiles which can be used as testbench in Home Energy Management Systems project.
- Built a visualization of ExoGENI-WAMS testbed in MATLAB where a user can have an experience of working in actual testbed.

Target, Cary, NC
Sales Person and Cashier | July 2015 – March 2017
- Resolved customers' concerns in person and over phone.
- Delivered accurate product placement, pricing and labels.

VOLUNTEER AND LEADERSHIP EXPERIENCE

- Women & Minority Engineering Alternative Spring Break, Rwanda
  March 3 – March 11, 2018
- FREEDM Student Leadership Council, North Carolina State University
  Student Life Committee Member | January 2017 – Present
- World Congress of Global Partnership for Young Women, Seoul, Korea
  Representative of Bangladesh | August 2014
- Women in Engineering, Bangladesh Congress
  Volunteer | December 2013
- Bangladesh University of Engineering and Technology, Bangladesh
  Class Representative | May 2012 – January 2015
- Badhan (A blood donation agency), BUET Zone, Bangladesh
  Organizing Secretary | May 2012 – January 2015
- Murcchana (A cultural organization), BUET Zone, Bangladesh
  Organizing Secretary | May 2012 – January 2015

TECHNICAL SKILLS

- ***Language Experience:***
  Assembly, C, C++, Java, MATLAB, XHTML, CSS, Verilog
- ***Platforms:***
  Windows, Linux, Ubuntu
- ***HDL Simulation & Synthesis Tools:***
  ModelSim, Quartus, Vivado, Verilog XL, DesignVision

RELEVANT COURSEWORK

- Computer Networking
- ASIC and FPGA Design with Verilog
- Power Electronics
- IC Technology and Fabrication
- Solid State Device
- Computer Systems Programming
- Object Oriented Programming
- Fundamentals of Logic Design
- Design of Complex Digital Systems
- Embedded Systems
- Analog and Digital Circuit Design
- Electromechanical Energy Conversion
- Microelectronics

RELEVANT COURSE PROJECTS

- Cognitive Telescope Network (IBM)
- Vector convolution with SRAM
- Line follower car
- Tic-Tac-Toe game in MATLAB
- Backgammon game in C
- Word search puzzle in C
- Vending machine controller
- Temperature controlled fan
- 3-phase induction motor

ACHIEVEMENTS

- ***Publication:*** A. Chowdhury. English subtitles and speaking skill, *InterTEXTS, Third Edition,* September 2016.
- ***Presenter*** at *National Conference on Undergraduate Research 2017*
- ***Best Poster Award Winner*** at North Carolina State Energy Conference 2017