

# Rafeeul Alam

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## SUMMARY OF QUALIFICATIONS

- Researched electrical devices for system integration and development for high data volume applications at Air Force Research Laboratory (AFRL)
- Performed a critical evaluation on supplier compliance for a competitive multi-million dollar proposal for Northrop Grumman Aerospace Systems
- Developed two websites as a novice programmer using HTML5, CSS and JavaScript based on templates from [html5up.net](http://html5up.net)
- Experienced in projects that require developer boards and embedded systems such as the Raspberry Pi, Arduino and ARTIK 10

## EDUCATION

Arizona State University (ASU), Tempe, AZ  
BSE in Electrical Engineering

Graduated: May 2017  
GPA: 3.55

### Relevant Course:

- Entrepreneurship and Value Creation
- Digital System and Analog Circuits
- Hardware Language/Programmable Logic
- Communication Networks

### Academic Awards:

- Cum Laude honors award
- Dean's List for 7 semesters
- Provost Scholarship

## ENGINEERING PROJECTS

### Rear-End Collision System (Senior Design Project)

Aug. 2016-May 2017

- Designing a motorcycle helmet accessory in order to warn riders of a potential collision/giving awareness in their blind spot
- Generated market research, technology research and wrote proposals for initial phase of project
- Modeled the conceptual design for initial construction using SketchUp and Adobe Fusion 360 software

### Internet-of-Things (IoT) based Pet Care System

Aug.-Dec. 2016

- Developing an embedded IoT based system that will function as an automatic pet feeder to promote proper pet healthcare and pet owner engagement
- Modeling the system incorporating Samsung's ARTIK 10 developer board and additional hardware components

### FPGA Development for High-Data Volume Applications

May-Aug. 2016

- Developed theoretical background research for a project concerning high-data volumes with FPGA implementations
- Composed research and data into an internal report on FPGA implementations for future experimental work

## PROFESSIONAL EXPERIENCE

### College Technical Intern

Northrop Grumman Corporation

May-Aug. 2017  
Palmdale, California

- Evaluated critical requirements to analyze supplier compliance for a technical evaluation of a competition contract
- Developed a submittals tracking sheet so responsible engineers can manage and maintain schedule during the proposal process
- Supported the Avionics group in a defense technology upgrade program for the B-2 aircraft

### Phillips Scholars Program (Internship)

Air Force Research Laboratory

May-Aug. 2016  
Kirtland AFB, Albuquerque, NM

- Operated as local Electrical Engineer subject-matter expert for overall project in the Space Vehicles branch
- Presented/discussed a poster of the compiled research on FPGA implementations and characterizations among fellow scholars and AFRL research scientists/engineers

## TECHNICAL SKILLS

- Programming Languages: HTML5/CSS, Python, Terminal/Linux, VHDL, MIPS Assembly, C++, Java, VBA
- Software Experience: Cadence6 & Cadence5, Logic Works 5, PSpice, Matlab, Xilinx Design Suites, Excel (Data Analysis), BIOS
- Electrical Equipment: IC chips, Oscilloscopes, FPGA boards, ARTIK 10, Arduino, Raspberry Pi Model 3, ANYS HFSS

## EXTRACURRICULAR ACTIVITIES

### ECEE Student Mentor

Aug. 2015- May 2017

- Volunteer to help promote the School of Electrical, Computer, and Energy Engineering & mentor freshman/new students to a greater success

### Founder/Photographer at Project.5WIH

Jan. 2017-present

- Created an initiative that interviews millennials to showcase people's background stories through photography
- Developed a website using HTML5/CSS to go along with the social media platforms: [www.project5w1h.us](http://www.project5w1h.us)