Alnur Elberier

Education

University of Washington

Bachelor of Science, Computer Engineering

Coursework | Embedded Systems Design, Hardware & Computer Organization, Data Structures Algorithms and Discrete Math, Electronic Test and Measurement

Bachelor of Science, Mechanical Engineering

Coursework | Mechatronics Design, Systems and Controls, 3D Modeling Design Analysis, Mechanical System Design, Heat Transfer, Fluid Mechanics

Relevant Experience

Boeing Commercial Airplanes

Product Development Cybersecurity Engineering Co-Op

- Developed a software defined radio GPS receiver and transmitter in order to demonstrate GPS spoofing •
- Developed a GPS spoofing detection package to detect malicious GPS signals .
- Assessed cybersecurity risk associated with robotic industrial equipment across 4 production sites
- Developed automated industrial asset risk assessment procedure resulting in a 75% time reduction •
- Minimized production line stoppages by effectively quarantining 3 industrial cybersecurity incidents

Center for Information Assurance and Cybersecurity, Rover Games Competition September 2018-June 2019 Senior Engineering Lead

- Designed, developed, and tested 4 Wi-Fi enabled stair climbing robots to compete in robotic hacking competition •
- Programed pulse width modulated motor controls in python
- Designed consolidated and regulated power delivery system for electronics requiring various source voltages •
- Modeled 125 of the 500-part mechanical design in SolidWorks .
- Built a virtual private network to act as the arena for the hacking competition .
- Recruited, mentored, and trained junior level engineers

University of Washington College of Engineering Undergraduate Researcher

- Tested properties of various synthetic/composite materials
- Analyzed scanning electron microscope images to better understand material behavior
- Re-interpreted lab methodology in accordance with ASTM standards for publication of lab findings

University of Washington

Study Abroad Ambassador and Undergraduate Researcher

- Proposed a 5 year plan to promote reliability, resiliency, and accessibility of the Japanese energy provision system •
- Transcended language and cultural barriers to collaborate effectively with international team members
- Presented the findings of our research to over 200 prospective study abroad students

Technical Skills

Programming Language:	C++, C, Java, Python
Engineering Platforms:	Arduino, Raspberry Pi, SolidWorks, Matlab, Verilog, LTspice, Granta
Fabrication:	Soldering, 3D Printing, Mill and Lathe Machining
Languages:	Novice Level French and Arabic

Extracurricular Activities and Awards

Department of Homeland Security, Industrial Control Systems Cybersecurity Training Department of Homeland Security, Critical Manufacturing Sector conference participant National Society of Black Engineers Leslie Ashbaugh Scholarship Recipient

October 2019 September 2019 September 2014-Present June 2018

Anticipated December 2019

Anticipated December 2019

November 2018-February 2019

July 2018-September 2018

February 2019-Present