

# Nefertari Parks

Mechanical Engineering Student

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## EDUCATION

### Mechanical Engineering

Howard University

08/2016 – 05/2020 GPA: 3.01

## WORK EXPERIENCE

### Electromechanical Engineer

Summer Intern

Lockheed Martin

06/2019 – 08/2019 Orlando, Florida

- Created an expanded and detailed interconnect diagram showing all of the cabling and pin connections for missile.
- Modified, designed, and 3D-printed components of the missile's battery enclosure including the TMFTS, Midsection and Guidance Section for a fit check.

### Hardware Engineering Summer Intern

Northrop Grumman

06/2018 – 08/2018 Los Angeles, California

- Modified various design drawings on Solid Works for LN200 Accelerometers and Laser Gyroscopes.
- Designed and 3D printed an efficient Isolator Fixture for X-Ray Scanning using Solid Works.
- Completed Similar-To-Analysis for getters as well as a purchasing proposal for a new 3D printer.

### Research Engineer

United Arab Emirates University (Gear Up Research Abroad Program)

05/2018 – 06/2018 Al Ain, United Arab Emirates

- Created Matlab code to develop a solution for using microfluidic devices to help detect cardiovascular disease.
- Collaborated with team and submitted a detailed research report to IEEE conference about using a dielectrophoresis method to create and build an efficient microfluidic device which was successfully published and presented.

### Mechanical Engineering Intern

Department of Energy

06/2017 – 08/2017 Washington, DC

- Assisted with DOE's FEMP(Federal Energy Management Program) who partnered with NASA(National Aeronautics and Space Administration) to create intellectual property in the flywheel mechanical battery technology area
- Collaborated with intern at NASA's White Sands Testing Facility and wrote a technical paper about flywheel battery's energy storage capabilities and system cost reductions that is now used by NASA's energy management team

### Substation Engineering Design Intern

Potomac Electric Power Company (Pepco)

06/2016 – 08/2016 Washington, DC

- Applied engineering application software(Micro-station) to complete engineering tasks such as ground grid design, relay coordination, transformer sizing, and load flow and short circuit studies
- Created design documents and drawings for new substation projects including wiring diagrams from schematics and applied field mark-ups of project as-built drawings.

## SKILLS

Nx 10,Creo, Solid Works, Fusion 360, Cura Software, Matlab, Python, X-Foil, Micro-station

## PROJECTS

Google HPS (Hardware Product Sprint Program) (06/2019-08/2019)

- Analyzed product development process to create a google home diffuser using Creo and refined parts for manufacturability.
- Presented product idea to google executives & peers

Afro Hacks (Hackathon) (10/2018 – 10/2018)

- Collaborated with team to successfully create a virtual reality mobile app prototype.
- Tested app using Google's Virtual Reality Headset.

Intro to Computer Aided Design Final Project (10/2017 – 11/2017)

- Created a Boeing 747 plane model using NX-10 software.
- Designed the turbine of plane and assisted with wings of Boeing 747 model.

Senior Research Practicum Project (08/2015 – 04/2016)

- Worked with Marymount University professor to 3d-print and assemble prosthetic hand
- Utilized Cura software to design prosthetic hand pieces and tested grasp control of assembled hand
- Donated 3-D printed prosthetic hand to those in need of an upper limb assistive device through E- NABLE

S.A.M.S (Summer Academy of Math and Science) Carnegie Mellon University (06/2015 – 08/2015)

- Designed and constructed a 3-D printed aircraft wing using X-Foil Software.
- Tested wing model in wind tunnel to achieve efficient Airfoil lift/drag ratio.

## ORGANIZATIONS

Howard University Chapter of The National Society of Black Engineers (10/2016 – Present)

Community Service Chair (2019-2020); Vice President (2018-2019); Public Relations Chair (2017-2018); Freshman Liaison (2016-2017)

Howard University Women's Club Basketball Team (11/2016 – Present)

ASME (American Society of Mechanical Engineers) (11/2016 – Present)

Howard University Society of Women Engineers(SWE) (09/2016 – Present)

## AWARDS

Northrop Grumman/NSBE Pipeline Scholarship Award (03/2018 – Present)