**Catherine Wood**

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**EDUCATION**

**Duke University**, Durham, NC May 2018

Bachelor of Science in Engineering, Mechanical Engineering Major, Electrical and Computer Engineering Minor

*Selected Coursework:* Data Structures and Algorithms, Computer Architecture,Mechanics of Solids and Dynamics, Thermodynamics, Control Systems, Structural Properties of Material Science

**Taipei American School**, Taipei, Taiwan May 2014

**ENGINEERING EXPERIENCE**

**Carbon, *Life Sciences Intern*,** Redwood City, CA June 2016 – August 2016, May 2017 – Present

* Characterize specific mechanical properties of Carbon resins
* Determine minimum feature capabilities of continuous liquid interface production (CLIP) technology
* Collaborate with multiple teams to combine CLIP technology with medical applications

**Shell Ocean Discovery XPRIZE, *Student Participant,*** Duke University January 2017 - Present

* Design and build a heavy lift unmanned aerial vehicle (UAV) as a part of a larger project to attempt to map 100km2 of the bottom of the ocean floor at depths of 4,000m
* Design and 3D print structures for the heavy lift UAV using SOLIDWORKS
* Raised $20,000 to fund material, equipment and travel expenses

**Ken Gall Lab, *3D Printing Research Assistant*,** Duke University January 2016 – Present

* Research and test customizable medical device applications of 3D printed parts
* Build prototypes of spinal cages on Carbon’s M1 3D printer for design analysis
* Utilize 3D printing to optimize the engineering design process to allow for more efficient manufacturing

**Duke Engineers for International Development, *Engineer,*** Rwanda October 2014 – September 2015

* Designed and built a suspended bridge with and NGO Bridges to Prosperity using AutoCAD
* Collaborated with local workers and a local university with limited resources to construct the bridge
* Solicited donations from multiple sources to raise $16,500 to cover construction and travel expenses

**Integrated Design Challenge**, ***Student Participant****,* Duke University September 2015 – December 2015

* Engineered and programed an Arduino BOE Shield-Bot capable of following a line, differentiating between multiple colored blocks, and communicating with other Shield-Bots via Bluetooth

**ADDITIONAL EXPERIENCE**

**Duke Technology Scholars, *Scholar,*** Duke University March 2016 – Present

* Scholar in the first class of the program designed to support and retain women in technology through a paid summer internship, a one-on-one mentorship program, networking events as well as group housing
* Spoke to the Duke Trinity Board of Visitors and at other events to share the benefits of the program

**Outdoor Adventures, *Trip Leader and Supervisor*,** Durham,NCAugust 2015 - Present

* Participated in Outdoor Adventures Leadership Development Program to develop leadership skills
* Organize rental equipment, rent equipment and monitor the rock climbing wall

**First-Year Advisory Counselor Board***,* ***Board Member,*** Duke University April 2015 - Present

* Train approximately 15 sophomores and juniors to be First-Year Advisory counselors for freshmen
* Lead a group of board members to facilitate a Title IX discussion and assembly with all incoming freshmen

**Young Men’s Christian Association, *Sports Coach,*** Durham, NC August 2015 – December 2015

* Coached soccer games and facilitated weekly practices for approximately ten children aged 5-6

**Honor Committee, *President*,** Taipei, Taiwan April 2011 - May 2014

**Varsity Soccer, Basketball, Softball,** ***Captain*** August 2010 - May 2014

* Varsity player for 10 tournaments across South-East Asia; received MVP and all-tournament awards

**Corning Research, *Research Intern****,* Hsin Chu, Taiwan June-July 2013

* Shadowed researcher to extract RNA from bacteria cells and prepared summary report

**SKILLS AND CERTIFICATIONS**

*Computer Skills:* Proficient in Java, SOLIDWORKS, JMP, MATLAB, AutoCAD, Arduino

*Interests:* Prosthetic devices,3D printing, International Travel (18 Countries; 5 Continents), Running, Skiing

*Languages:* English (Native), Mandarin Chinese (Basic proficiency)