

Sophie Lancaster

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EDUCATION

University of Notre Dame	Notre Dame, IN
Major: Bachelor of Science in Computer Science	May 2019
Minor: Engineering Corporate Practice	GPA 3.63/4.00, Honors: Dean's List Spring 2018
Notre Dame London Program	London, England
Studied Integrated Business and Engineering and Sustainability	Summer 2016
The American International School of Rotterdam	Rotterdam, The Netherlands
International Baccalaureate Diploma Recipient	June 2015

INTERNSHIP AND RESEARCH

Verizon	Ashburn, Virginia
IT Data Analytics Intern	June 2018-August 2018
<ul style="list-style-type: none">Developed a more efficient pricing process by utilizing Python and Verizon's Enterprise data toolsAutomated the comparison of external invoices and internal billing data using Python screen scraping	
National Science Foundation	Budapest, Hungary
Summer Researcher, International Research Experiences for Students (IRES)	May 2017-August 2017
<ul style="list-style-type: none">Researched machine learning and neural networks using TensorFlow and Python at the Pázmány Péter Catholic University under the leadership of András Horvath and Michael NiemierCollaborated with a research partner to investigate the implications of removing the fully connected layer from convolutional neural networks (CoNNs) and implementing locality-sensitive hashing in CoNNs	

WORK EXPERIENCE

Department of Computer Science and Engineering	Notre Dame, IN
Teaching Assistant	August 2018-Present
<ul style="list-style-type: none">Performed academic tutoring, provided assistance to professor, and monitored assessments for CSE 20232 (C/C++ Programming) and CSE 30332 (Programming Paradigms)	
Office of Outreach and Engagement Recruitment	Notre Dame, IN
NDignite Connection Program Assistant	August 2017-Present
<ul style="list-style-type: none">Assisted with NDignite Connection which is a leadership program aimed specifically at top-performing students in grades 7 and 8 by providing feedback to students and by helping to create the curriculum	
McGlinn Hall	Notre Dame, IN
Hall Clerk	August 2016-May 2018
<ul style="list-style-type: none">Assisted hall rector in organizing hall emails and weekly news by using basic Microsoft Office applications	

PROJECT EXPERIENCE

Department of Computer Science and Engineering	Notre Dame, IN
Database Concepts, team member	August 2018-December 2018
<ul style="list-style-type: none">Created a web application so that students can get and make study abroad travel recommendations	
Social Sensing, team member	January 2018-May 2018
<ul style="list-style-type: none">Generated a model that aggregates multiple types of data to predict the Best Picture winner of the Oscars using Python, the genetic algorithm and a random forest classifier	
Theory of Computing, team member	January 2018-May 2018
<ul style="list-style-type: none">Constructed a grep application that matches strings including backreferences then shows that including backreferences makes this application NP-complete	
Data Structures, team member	January 2017-May 2017
<ul style="list-style-type: none">Applied C++ and HTML to create a meal planner program that takes user input and creates a meal based on items offered in the dining hall allowing users to be more efficient and healthy when choosing meals	
Fundamentals of Computing, team member	August 2016-December 2016
<ul style="list-style-type: none">Employed C++ to create a version of the popular Piano Tiles game which created a fun outlet for users	

The First Year of Studies

First Year Engineering, team member

Notre Dame, IN
August 2015-May 2016

- Utilized CREO program to model floating platform that had to sustain certain weight requirement
- Built robotic pet using Lego NXT kit and programmed robot with LabVIEW
- Designed a simulated version of the popular board game Clue using MATLAB

LEADERSHIP & ACTIVITIES

Girls Who Code

Club Member

Notre Dame, IN
August 2018-Present

- Taught girls at Penn High School how to code by guiding them through the creation of a Python chatbot

Society of Women Engineers (SWE)

Tech Team Co-Leader

Notre Dame, IN
August 2017-May 2018

- Partnered with the community of South Bend to bridge the digital divide by installing solar-powered WiFi pavilions in underserved areas of the city
- Led the tech team by presenting previous year's project at national SWE conference, filling out group paperwork, setting up meetings with industry partners, and facilitating teamwork at group meetings

Club Member

August 2015-Present

- Participated in activities and events organized by this professional development organization which seeks to increase the importance of women in engineering

McGlinn Hall

Hall Council Apparel Commissioner

Notre Dame, IN
August 2017-May 2018

- Designed spirit apparel for residents in the dorm using online designing tools

Hall Council Multicultural Commissioner

August 2016-May 2017

- Planned monthly events in the dorm to raise awareness about other cultures

First Year Engineering Council

Club Member

Notre Dame, IN
August 2015-May 2016

- Organized informative events for other first year engineers and engaged with engineering professors

Shamrock Leadership Series: First Year Institute

Institute Member

Notre Dame, IN
February 2015

- Attended a lecture series which sought to increase the leadership skills of first year students

The American International School of Rotterdam

Student Body President

Rotterdam, The Netherlands
August 2014-April 2015

- Raised funds to organize school activities and functions including end of year prom

SKILLS

Computer: Microsoft Office, Unix, C/C++, Python, TensorFlow, Scheme, Java, JavaScript, x86, PHP, HTML, SQL

Language: Sufficient in Spanish

Interests: Traveling, cooking, fitness, socializing, family time, music