

# Sophie Lancaster

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## EDUCATION

### University of Notre Dame

Major: Bachelor of Science in Computer Science

Minor: Engineering Corporate Practice

Notre Dame, IN  
May 2019

GPA 3.63/4.00, **Honors:** Dean's List Spring 2018

### Notre Dame London Program

Studied Integrated Business and Engineering and Sustainability

London, England

Summer 2016

## INTERNSHIP AND RESEARCH

### Verizon

IT Data Analytics Intern

Ashburn, Virginia  
June 2018-August 2018

- Developed a more efficient pricing process by utilizing Python and Verizon's Enterprise data tools
- Automated the comparison of external invoices and internal billing data using Python screen scraping

### National Science Foundation

Summer Researcher, International Research Experiences for Students (IRES)

Budapest, Hungary  
May 2017-August 2017

- Researched machine learning and neural networks using TensorFlow and Python at the Pázmány Péter Catholic University under the leadership of András Horvath and Michael Niemier
- Collaborated 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

Teaching Assistant

Notre Dame, IN  
August 2018-Present

- 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

NDignite Connection Program Assistant

Notre Dame, IN  
August 2017-Present

- 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

## PROJECT EXPERIENCE

### Department of Computer Science and Engineering

Database Concepts, team member

Notre Dame, IN  
August 2018-December 2018

- Created a web application so that students can get and make study abroad travel recommendations

Social Sensing, team member

January 2018-May 2018

- 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

## 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

## 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