# Sophie Lancaster

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## EDUCATION

**University of Notre Dame** — Notre Dame, IN
Bachelor of Science in Computer Science — May 2019
GPA 3.62/4.00

**University of Notre Dame** — London, England
Studied Integrated Business and Engineering and Sustainability — Summer 2016

## INTERNSHIP AND RESEARCH

**Verizon** — Ashburn, Virginia
IT Data Analytics Intern — June 2018-August 2018
- Used Python and Verizon's Enterprise data tools to improve the efficiency of the pricing process
- Used Python and screen scraping libraries to automate the process of comparing external invoices with internal billing data

**National Science Foundation** — Budapest, Hungary
Summer Researcher — May 2017-August 2017
- International Research Experiences for Students (IRES)
- 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
- Worked 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
- Performed academic tutoring, provided assistance to professor, and monitored assessments for CSE 20232 (C/C++ Programming)

**Office of Outreach and Engagement Recruitment** — Notre Dame, IN
NDignite Connection Program Assistant — August 2017-Present
- NDignite Connection is a leadership program aimed specifically at top-performing students in grades 7 and 8
- Provide feedback and create curriculum for the students participating in the program

## PROJECT EXPERIENCE

**University of Notre Dame** — Notre Dame, IN
*Social Sensing* — January 2018-May 2018
Oscar Best Picture Winner Predictor, team member (3 members)
- Used Python and the genetic algorithm and random forest classifier to create a model that aggregates multiple types of data to predict the Best Picture winner of the Oscars

*Theory of Computing* — January 2018-May 2018
Modeling Backreferences and NP-Completeness, team member (3 members)
- Used Python to create a grep application that matches strings including backreferences and creates an extension to show that including backreferences makes this application NP-complete

## LEADERSHIP & ACTIVITIES

**Society of Women Engineers (SWE)** — Notre Dame, IN
Tech Team Co-Leader — August 2017-May 2018
- Worked with the community of South Bend to bridge the digital divide by installing solar-powered WiFi pavilions
- 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
*Language:* Sufficient in Spanish

## INTERESTS

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