# Sophie Lancaster

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**Home Address Campus Address** 1855 Vaness St., Apt. 4102 907 Sunday Lane Winona Lake, IN 46590 South Bend, IN 46637

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

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 May 2017-August 2017

June 2018-Present

Summer Researcher 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

#### 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

McGlinn Hall Notre Dame, IN Hall Clerk August 2016-May 2018

Utilize technical skills by operating basic Microsoft Office applications to assist hall rector in

organizing hall emails and weekly news

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 August 2017-May 2018

Tech Team Co-Leader

- 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, SQL

Language: Sufficient in Spanish

### **INTERESTS**

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