Nathan Israel Luskey

nluskey@andrew.cmu.edu | nathanluskey.com | github.com/nathanluskey
www.linkedin.com/in/nathan-luskey

EDUCATION

Carnegie Mellon University (CMU) School of Computer Science **Pittsburgh, PA**
M.S. Computer Science (MSCS) May 2023

- Coursework: Deep Learning, Algorithms, Machine Learning, ML with Large Datasets, Distributed Systems, Statistics

Georgia Institute of Technology (GT) **Atlanta, GA**
B.S. Biomedical Engineering GPA: 3.92/4.0 December 2020

- Minors: Computer Science & Industrial Design
- Stamps President's Scholar (Georgia Tech's top merit-based scholarship)
- Coursework: Systems & Cellular Physiology, Cell Culturing, Intro to AI, Human Factors, Human-Computer Interaction, Object Oriented Programming, Data Structures, Algorithms, Database Management, Mechatronics, Biomedical Engineering Design

INDUSTRY EXPERIENCE

Optum Healthcare **Pittsburgh, PA**
Technology Development Intern June - August 2022

Olive Diagnostics **Modi'in, Israel**
Part-time Software Development Intern February - August 2021

- Produced Docker images and Anaconda environments for Python microservices on IBM Cloud Code Engine
- Wireframed an entity relationship diagram (ERD) and deployed a MongoDB database with a Python wrapper class for managing MVPs' raw data and different models' predictions

Ethicon Endo-Surgery **Cincinnati, OH**
Design Co-op in Front End Energy May - August 2019

- Supported implementation of temperature control algorithm to prevent harmonic scalpel overheating in bariatric surgery
- Streamlined data processing pipeline by consolidating methodologies and documentation through a MATLAB script

Design Co-op in Lifecycle Open Mechanical Products August - December 2018

- Improved product usability by quantifying performance of existing linear surgical staplers
- Designed and qualified testing methods and fixtures for ultrasonic weld strength for skin stapler

RESEARCH EXPERIENCE

Georgia Tech Healthcare Robotics Lab, Dr. Charles Kemp **Atlanta, GA**
Undergraduate Research Assistant May - December 2017

- Set up 1-Degree-of-Freedom robot to automate data collection on flat samples for training an SVM
- Coauthored "Classification of Household Materials via Spectroscopy" in IEEE Robotics and Automation Letters in January '19

ACADEMIC PROJECTS

Natural Language Processing Word Embeddings for Financial Documents **CMU** Spring 2022

- Tuned several word embedding algorithms on SEC data culminating in tuning BERT for an improvement from 71% to 80%

Song Classification for Running Playlists **GT** Summer 2020

- Developed both k-means clustering and decision tree with pruning to optimize models for classifying songs

Intraoral Dental X-Ray **GT BME Capstone** Spring 2020

- Followed FDA waterfall to observe and interview doctors, prototype product, and evaluate doctor's satisfaction

LEADERSHIP

Member, CMU SCS Masters Advisory Committee March 2022 - Present

Project Coordinator, Projects Director, and VP of Corporate, Tech Beautification Day January 2017 - April 2020

SKILLS

Languages: Python, Java, Go, MATLAB, SQL, C/C++, HTML/CSS/JavaScript
Packages: PyTorch, PyTorch Lightning, TensorFlow, PySpark, NumPy, pandas, scikit-learn, Matplotlib
Software: Databricks, Docker, MongoDB, MySQL, Anaconda, Solidworks, HSMWorks, Visual Studio Code
Equipment: CNC mill, laser cutter, 3D printer, axial & linear load machines, myDAQ, TI MSP430 microcontroller