Duc Manh Nguyen

(585) 978-0764 • ducmnguyen22@gmail.com• github.com/dnguy24 • Rochester, New York

EDUCATION

University of Rochester **Rochester, NY**

Bachelor of Science in Computer Science *August 2018 – May 2022 (Anticipated)*

- Cumulative GPA: 3.93/4.0 (Dean's List all semesters)
- Dean's Scholarship
- Core Courses: Data Structures & Algorithms, Computation & Formal Systems, Computer Organization, Artificial Intelligence, Introduction to Computer Science.

EXPERIENCE

CMC Corporation **Hanoi, Vietnam**

Data Science Intern *May 2019 – July 2019*

- Contributed to a team project "Customs Fraud Detection", which shed light upon new practices in detecting fraud behaviors in customs declaration data.
- Implemented the Random Forest binary classifier to build a more reliable fraud detection model with F-1 score of 0.93.
- Performed detailed analysis of different Machine Learning algorithms to identify the most robust model for the fraud detection problem using statistical methods and data visualizations; improved accuracy by 11%.
- Processed importing and exporting data from the General Department of Vietnam Customs using MySQL.

Onfire.vn **Hanoi, Vietnam**

Writer/Web designer *January 2016 – October 2016*

- Scripted and translated eSports and gaming-related articles for the eSports news website Onfire.vn.
- Designed the interface of the website using WordPress.

PERSONAL PROJECTS

University Chatbot

- Developed a chatbot to give students daily life advices as well as University's service directions and deployed it on Slack.
- Chatbot was created using the Rasa Language Understanding library and trained by the Support Vector Machine (SVM) model.
- Collected and processed real-time data for the Chatbot from University's websites using the BeautifulSoup and LXML library.

Support Vector Machine Visualization

- Implemented from scratch the Support Vector Machine classifier using the Sequential Minimal Optimization algorithm in JavaScript.
- Created a web-based interactive visualization for the Support Vector Machine using HTML, CSS and JavaScript.

Digit Recognition

- Implemented from scratch and trained a Convolutional Neural Network to classify hand-written digits with 93.3% accuracy in Python using the NumPy library.
- Created a web app that can perform digit recognition on user's input using Flask and jQuery.

Text-based AI Checkers

- Text-based Checkers game with an AI Computer player utilizing the MINIMAX algorithm in Java that can beat human players in optimal time.

TECHNICAL SKILLS

- Languages: Java, Python, HTML, CSS, JavaScript
- Web Developing Frameworks: Flask
- Machine Learning frameworks: TensorFlow, scikit-learn
- Analytical software: MATLAB