Naveen Raman

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LINKS

Github:// naveenr414
Website:// naveenraman.com

COURSEWORK

GRADUATE

Computational Geometry
Mechanism Design
Computational Linguistics
Quantum Computing
Deep Learning

UNDERGRADUATE

Algorithms I, II
Applied Cybersecurity I, II
Computer Systems
Computer Vision
Cryptography
Data Structures
Databases
Discrete Structures
Linear Algebra I, II
Partial Differential Equations
Probability Theory
Programming Languages
Real Analysis
Statistical Theory

SKILLS

LANGUAGES

C • C++ • Python • Java
Javascript • x86 Assembly
HTML/CSS • SQL • Bash/Unix • LaTeX
Mathematica • Haskell
Rust • Ruby • Ocaml

TECHNOLOGIES

Flask • Django • Node.js • React
MongoDB • Scikit-learn • Jupyter
JQuery • Git • Keras • TensorFlow
Pandas • Docker • AWS

ACTIVITIES

Bitcamp Hackathon Technology Team
Bloomberg Codecon Finalist
MCM Math Modelling Competition
Engineers Without Borders
Puzzle Club Vice President
Startup Shell Director
College Mentors
College Park Academy Volunteer
Quizbowl

EDUCATION

UNIVERSITY OF MARYLAND COLLEGE PARK

BS Computer Science and Statistics - Anticipated May 2022
GPA: 3.97

- Goldwater Scholarship, Merrill Presidential Scholar, CRA Outstanding Undergrad Researcher Finalist
- Global Fellows, ACES Cybersecurity, Computer Science Honors College

EXPERIENCE

MIT LINCOLN LAB - Research Intern

May 2021 - August 2021

- Fine-tuned human-AI collaboration algorithms using semi-supervised learning
- Developed PyTorch ResNet models for predicting human performance on CIFAR10, used results to develop deference algorithms
- Published at Human and Machine Decisions Workshop NeurIPS 2021

FACEBOOK - Software Engineering Intern

May 2020 - August 2020

- Developed full stack web application using React+Hack to debug issues with ranking models, and shipped code into production after rounds of UI testing
- Reduced processing time of Presto SQL queries from minutes to seconds

CENTER FOR MACHINE LEARNING - Research Intern

August 2019 – Present

- Employed machine learning algorithms via Tensorflow and Scikit-learn to develop MDP-based deep learning algorithms for rideshare matching
- Utilized Monte Carlo simulations to approximate Shapley value of drivers
- Discovered Pareto Optimal policies, published at IJCAI conference

CMU SOFTWARE ENGINEERING RESEARCH FOR UNDERGRADUATES (REU) - Research Intern

May 2019 - August 2019

- Utilized Scikit-Learn, NLTK and Spacy libraries to develop an SVM classifier for toxicity on Github, achieved 91% precision and improved F-Score by 10%
- Published and presented at ICSE 2020 Software Engineering Conference

UMD COMPUTER SCIENCE - CMSC Teaching Assistant

January 2019 - Present

- Teaching CMSC 330 (Ruby, OCaml) Head TA for CMSC 389O (Algorithms)
- Developed quizzes, tests, projects, and held discussions for 40 students

CLIP NLP LAB - Research Intern

August 2019-Present

- Crafted baseline hybrid entity linking systems to improve question aswering
- Developed web application using React + Material UI to collect data
- Published preliminary research on entity linking at NeurIPS Workshop

PROJECTS

FINBOT - ChatBot to help people with mental health issues

- Designed a Naive Bayes Classifier+Sentiment to determine risk level
- Employed sentiment analysis and parse trees to accurately talk to users
- Won best Machine Learning Hack at HopHacks