ARJUN BHALLA

@ ab2383@cornell.edu Ithaca, NY www.arjunbhalla.com
linkedin.com/in/ab-98 github.com/ArjunBhalla98

EXPERIENCE

NTT Data, Inc **Summer 2018**

Software Engineering/Security Intern

Spearheaded an effort to automate and integrate various disparate security systems into a streamlined platform to efficiently detect vulnerabilities in a global network of over 50,000 endpoints, saving half an FTE of labor annually.

Automated feeds for a daily security operations report, interfacing with RESTful APIs, standardizing and streamlining the metrics used to measure the efficacy of the InfoSec programming, saving around 1.5 man-hours daily.

Performed multiple complete server set-ups (Ubuntu & CentOS), administration and maintenance, including updating a PERL script for an internal security tool.

Cornell University **Fall 2018**

CS 4700 TA (Artificial Intelligence)

Holding office hours, grading exams and homeworks, and building interactive demonstrations to elucidate topics in Artificial Intelligence and Machine learning (e.g. K-means clustering), in a class of over 200 students.

Cornell University **Fall 2017 - Spring 2018**

CS 1110 Consultant (Python)

Held 4 hours of weekly help sessions and labs, and graded exams and projects for a class of over 500 students in a Python & programming fundamentals course.

PROJECTS

Comparacter **Spring 2018**

Creator

Created a movie/character recommendation system focused on text-based character attributes.

Built the character similarity metrics using NLP, specifically implementing Jaccard similarity between characters based on tags generated by sentiment analysis. Carried out most of the data pre-processing with Empath, NumPy, SKLearn.

Chess AI **Spring 2018**

Creator

Designed an AI to play Chess at ~1800 ELO.

Implemented Machine Learning methods to improve the state-space search engine using temporal difference learning with epsilon-greedy policies. This was completed in Python, using the UCI protocol.

Fire & Shadow **Fall 2017 – Spring 2018**

Creator

Built a game from the ground up using Python.

Developed both basic and advanced game mechanics ranging from movement and simple board interaction to implementing a dynamic HuD, and part of enemy AI with respect to pathing.

EDUCATION

B.A. Computer Science

Cornell University

May 2020

GPA: 3.458
Tanner Dean's Scholar
Minor in Mathematics

SKILLS

Programming Languages

Python, Java, C, Javascript, OCaml, HTML5, CSS3, SQL, MIPS Assembly

Frameworks & Packages

Django, NumPy, React.js, Tensorflow

Other

Git, Bash, LaTeX, Mathematica, Logisim

Spoken Languages

English, Hindi, Spanish, Mandarin (Conversational)

COURSEWORK

Previous:

Data Structures & OOP • Discrete Structures • Systems Programming • Language & Information • Artificial Intelligence/Practicum • Multivariable Calculus • Differential Equations • Linear Algebra • Probability

Current:

Analysis of Algorithms• Functional Programming & Data Structures• Number Theory• Machine Learning in Python

CAMPUS INVOLVEMENT

Cornell Hacking Club **Fall 2017 – Present**

Treasurer

Compete in on-line security CTF challenges. (Previously member).

Team placed 6/1571 at NullCon HackIM, 83/2626 at GoogleCTF.

Solved challenges in the areas of Web Security, Binary reversing, and Steganography.

Delta Tau Delta **Spring 2018 – Present**

Treasurer

Managing a budget of over $400,000 and performing weekly Budget Vs. Actuals analyses to track expenditure, cutting unnecessary spending by about 20% .