Neel Verma

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https://neeljverma.github.io/

Education

Ramapo College of New Jersey | Mahwah, NJ

Bachelor's Degree | Major in Computer Science, Minor in Mathematics

Coursework

Computer Science I-II, Precalculus, Calculus I-II, Assembly Language Programming, Data Structures, Discrete Structures, Object Oriented Programming, Operating Systems, Advanced Topics: Scientific Programming with Python, Combinatorics, Software Design, Analysis of Algorithms, Artificial Intelligence, Linear Algebra, Web Applications Development, Unix Environment, Cryptography, Organization Of Programming Languages, Senior Project, Theory of Computation, .NET Environment, Database Design

Technical Skills

Languages: C/C++, Python, Java, HTML/CSS, Javascript, C#

Tools: Flask, NodeJS, MongoDB, SQL, SFML, SFGUI, Android, Tensorflow, Scikit, .NET

Experience

Generic Network Systems | Software Engineering Intern

- Designed and worked on a network backup system. Used a Python RabbitMQ framework called Pika.
- Went over and edited over 100 scripts to pass a 10/10 check when ran with Pylint, a Python linter.

Ramapo College of New Jersey | Computer Science Tutor

- Tutor Computer Science I-II and Data Structures

Projects

Artificial Trainer | C++, Artificial Intelligence

- A generation 1 Pokemon battle simulator and AI. The AI makes use of the minimax algorithm. For optimizations, it uses alpha-beta pruning, a transposition table, and iterative deepening. This project is currently only in console and still in development. Next steps would include making either a full GUI or connecting to an online battle simulator, such as Pokemon Showdown, and having the AI play against other players

Konane | Java Android, Artificial Intelligence

- Done in three phases. Phase I was implementing it as a standard 2 player game to get familiar with Android. Phase II was to implement searching algorithms (Best FS, BFS, DFS, and Branch and Bound) to show potential moves that either player could make. Phase III was to implement the minimax algorithm for gameplaying to add a computer player.

Distributed BFS | Python, Raspberry Pi Cluster, Distributed Computing

- A distributed version of breadth-first search, which was tested with graphs of small, medium, and large size. Also tested with both sparse and dense graphs. This was developed and tested on a Raspberry Pi master slave cluster.

Say Something | "Most Favorite Hack" at HackHers | Java Android, Google Maps, NodeJS, MongoDB, ExpressJS

- Developed at HackHers 2018. It is an application that allows a student on their campus to report a dangerous situation by sharing the location of said situation with everyone else on campus.

WebMH | "3rd Place" at JHacks | Python, Machine Learning, Scikit, MongoDB

- Developed at JHacks 2018. A project which, given a Twitter username, by way of a neural network, can tell if that person is more prone to mental health disorders or not.

Programming Contests/Hackathons

HackRU: 2016, 2017 | Tech Crunch: 2017 | HackHers: 2018 | JHacks: 2018

CCSCNE Spring 2017 | **2nd place out of 32 teams**

CCSCE Fall 2017 | **2nd place out of 19 teams**

Leadership Positions

Algorithms Club (Unofficial) | President

- Host internal contets on Kattis that focus on different algorithms.
- Host algorithms workshops that teach members about various important algorithms and how to use them.
- Participate in external contests where we compete with other schools (ex. ACMICPC).

//hackramapo | Treasurer

- Manage funds for events that we hold, such as LAN parties or different tech workshops.