Suvinay Bothra

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Education

University of Richmond, Virginia: B.S Computer Science, Minor: Business **May 2021**

GPA: 3.27 Major GPA: 3.50

Honors: Presidential Scholar, Davis UWC Scholar , Phi Eta Sigma Honor Society

Relevant Coursework: Algorithms, Artificial Intelligence, Competitive Programming, Computer Organization, Data Structures, Database Systems (Enrolled), NLP (Enrolled), Machine Learning (Enrolled), Linear Algebra, Web Programming (Harvard CS50)

Objective

I am seeking a full-time new graduate opportunity at Verizon Media. I enjoy work related to algorithms, back-end web application development, and artificial intelligence.

Skills

Java, Python, C++, ML / NLP, REST APIs, Django, React, JavaScript / AJAX, Map Reduce, SQL, AGILE, Git, Linear Programming, Linux, Firebase, HTML / CSS, OOP

Experience

Research Fellow, University of Richmond; Richmond, VA **May - July, 2020**

- Formulated maximum flow graph algorithms with probabilistic assumptions resulting in liver allocations that were 6% more optimal than preexisting greedy models
- Proposed and implemented the idea of using a modified round-robin weighted fair queuing technique that increased the fairness of livers allocated as observed in 4 of the 5 graph visualization tests based on MELD scores
- Incorporated features like blood-type and rejection probabilities to make the model realistic; this helped us gauge the superiority of max-flow algorithms in terms of optimality

Software Engineer Intern, Performix Services; Minneapolis, MN **May - July, 2019**

- Updated, documented, refactored, and debugged a React Native application to be compatible with modern systems by fixing dysfunctional and deprecated features
- Incorporated an interactive notification function for upcoming events; the application can be found on Play store and iTunes store : “NCMSDC App”
- Increased the efficiency of various aspects of the code this including the use of minimum heaps to remove events which improved the efficiency of this task by 690%

Resident Assistant, University of Richmond; Richmond, VA **Aug, 2018 - May, 2019**

- Fostered a community culture of inclusivity and personal growth for 56 students through programs based on sexual health, alcohol awareness, race equity, get-togethers
- Enforced policy and tackled sensitive situations of assault, conflict, drug abuse

Projects

Sentiment Analysis of Movie Reviews (Python, Scikit Learn) GitHub link

- Conducted binary classification of movie reviews in the IMDB Dataset using linear and quadratic kernel SVMs with NLP techniques like Bag of Words and TF-IDF which yielded accuracies of 85.4% and 78.3 % respectively

Instagram Clone (Python, React) [Coursework]

- Created a web application similar to Instagram that implements client-side dynamic pages with a React front-end and a Django back-end: the user can make an account, follow people, and upload , like, comment on pictures

Endgame Chess AI(Python) GitHub link

- Developed a state based chess engine that finds the optimal moves using alpha-beta pruning (H-minimax) that relies on a heuristic based evaluation function; the engine found optimal moves 100% of the times in end-game scenarios

Contests

International Collegiate Programming Competition (Mid Atlantic Region 2019) link

- Won an honorable mention at the test site for achieving 4th place (Team Beta Chai)

Smart Minds Hackathon (2018)

- Wrote a program to facilitate carpooling in an organization (won the 3rd position)

Additional

Ask Me About: Chess, Community Service, Elocution, NSBE, United World College, Yoga