Suvinay Bothra

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Education

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

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 Google. 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

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 alphabeta 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, United World College, Yoga