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### Aviraj Sinha

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**OBJECTIVE:** Seek an opportunity where I can apply, contribute, and expand my knowledge and experience.

**EDUCATION: Southern Methodist University** GPA 3.55

Second year student inBobby B. Lyle School of Engineering

BS Computer Science with Security and Data Specializations (May 2019)

MS Computer Science (May 2020)

**RELEVANT**

**SKILLS:**

**Language Proficiency:** C++, Java, Python, ARM Assembly Language, Matlab,HTML5, CSS3

**Technologies/Environments:** Git, Linux (Bash), Catch Test-driven Development, Google Analytics

**Certifications**: CompTia Security+, CompTia Network+; Google Data Analytics; Microsoft Technology Associated Network and Security; Microsoft Professional: Excel, Word, PowerPoint, Outlook

**Training:** Computer Hardware Assembly**,** Kali Linux Security tools, SAP-SD( Sales and Distribution)

**PROJECT Experience:**

**Advanced PDF Search Engine / C++ Apr-May 2017**

* Search engine tool capable of advanced set notation queries and relevancy ranking based on td/idf algorithm
* Extracted Queries and advanced search statistics, parsed documents and analyzed results in research paper
* Designed and developed a search engine capable of modifiable data structures to store inverted indices
* Capabilities of search history, bookmarking search results, easy-to-use interface and speeds in the milliseconds

**SPACE Explorer Design / Java Aug-Sept 2016**

* Designed code for a robot that can navigate by taking directions while avoiding dynamic and static obstacles
* Capable of taking sensor data of soil and air moisture and temperature with less than 5 % error
* Achieved robot’s programming goals by systematically assigned deadlines among team, and securing early victory
* Expertly marketed team’s Robot code design to staff at the SMU Final Design Show

**Rodent’s Revenge using Artificial Intelligence / Java Jun-July 2017**

* Recreated the renowned 1991 game with a high performing AI, increasing the level of difficulty of the game
* Used the meta-heuristic type simulated annealing to track down mouse
* Used knowledge of Java graphics and game engines

**Flight Planner / C++ Apr-May 2017**

* Developed a next generation flight path optimization tool to find flight paths that save money and/or time taken
* Creates a graph of cities in adjacency listand applied iteratively backtrack algorithm through graph

**Custom Favorite News Notification / Python Jun-July 2017**

* Customized news delivered based on topic of interest, minimizing clutter and increasing effectiveness
* Scrapes top news sources from headlines/links and consolidates news sources; automatically sends email notifications daily

**Network Analysis for a startup food packaging company Jun-July 2017**

* Obtained business requirements and created a network design
* Wrote a report on estimated cost and strategy to implement a new network for small business

**RELATED ACTIVITIES:**

Member of SMU Cyber-Security Club

Member of Institute of Electrical and Electronics (IEEE) Cyber Security Community

**PUBLICATION & AWARDS:**

Discovery Scholar

SMU Dean’s Scholar

HU Lee Taekwondo National Scholarship

Authored book Martial Arts or Science? ISBN 9781541201613 (available on Amazon.com)