Varshini Selvadurai

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My name is Varshini Selvadurai, and I am a junior in the Math, Science and Computer Science magnet program at Poolesville High School interested in interning at the National Institute of Standards and Technology through the Summer High School Intern Program (SHIP) this summer. I am particularly interested in data science as database research allows for researchers to produce new algorithms, systems, and software that make the data mining process more efficient. Consequently, over summer I would like to participate at the Information Technology Lab (ITL) to contribute and advance data science research.

I have expressed a fascination with computer science since middle school and have taken various computer science courses (see resume) to develop my knowledge. For example, the working knowledge of Java I gained in the Algorithms and Data Structures course is a suitable foundation to understand basic code and algorithms in the data science research. Additionally, for a final project in a math course called Analysis, I lectured about graph theory, a study that is associated database representation, allowing me to comprehend the structures involved in databases.

Many projects that I have done have enhanced my ability to work with many different types of people. As project manager, I organized and communicated requirements to my team members, managed progress, coordinated tasks, provided technical guidelines and together we completed a client project to develop and deliver a final product that randomizes plays during games and displays them on a remote-controlled LED sign. I can also take requirements from another team member and create a successful product. As the lead programmer and engineer, I worked to build and code a robot to maneuver on a model planet and detect "lava tubes" using sensor data from Arduino sensors coded using Arduino software with assistance from the team manager and the lead geologist. I believe being able to understand the research projects and its background along with being able to efficiently work with others makes me a qualified option for an internship position.

After highschool I plan on continuing my education in the computer science field at with Carnegie Mellon, Georgia Tech, or the University of Maryland honors program with a Banneker Key Scholarship. I would like to major in computer science and possibly engineering.