Neerja B. Thakkar

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Education

June 2019 | **Dartmouth College**
Bachelor of Arts: Computer Science, Mathematics, GPA: 3.90
Honors: Citation for Academic Excellence in Writing Seminar, Citation for Academic Excellence in CS50: Software Design and Implementation, Sophomore Science Research Scholarship
Relevant coursework: Computer Science 1 and 10, Software Design and Implementation, Discrete Mathematics for CS, Algorithms, Multivariable Calculus, Linear Algebra, Graph Theory, Probability, Topics in Abstract Algebra, Economics 1

Fall 2017 | **Aquincum Institute of Technology - Budapest**, Semester Study Abroad
Mobile Software Development, Applied Cryptography, Combinatorial Optimization, Complex Networks

June 2015 | **St. Paul Academy and Summit School**, GPA: 3.96, SAT: 2400
Honors: Cum Laude Society, Mathematical Association of America Award, AIME qualification, National Merit Scholarship Winner, National AP Scholar, National Spanish Exam Medal

Skills and Projects

Technical Skills
- Proficient: Python, Java, C
- Experience with: HTML/CSS, XML, Apache Spark, LaTeX, Bash

Selected Programming Projects
- Software to parse and create data frames from a new data format (XML, Java, Apache Spark, SQL)
- Implementation of clustering algorithms for analysis of T-cell receptor sequences (Python)
- Tiny Search Engine - Crawler, Indexer, Querier (C)

Experience

June - Aug 2016 | **3M Health Information Systems**, Software Engineering Intern
- Improved and updated a fundamental Java-based XML data parser, deployed using Spark and SQL
- Enabled analysis of millions of documents for data scientists and engineers throughout HIS
- Modified the parser to allow for anticipated future expansion, developed JUnit unit tests
- Prototyped cloud-based parser deployment using AWS

Jan 2017 - present | **Bailey-Kellogg Group** of Dartmouth CS Department, Research Assistant
- Implementing clustering algorithms on complimentary determining regions of T-cell receptor DNA sequences using Python to learn about and compare TCR repertoires of different patient populations

March 2016 - present | **Dartmouth CS Department**, CS1 and CS30 Teaching Assistant
- CS1 (Spring 2016): Taught weekly sections to 10 students on basic programming skills in Python, graded students' coursework. Helped students understand concepts and write and debug code
- CS30 (Summer 2017): Teaching assistant for Discrete Mathematics in Computer Science - teach students key concepts in discrete math during office hours, grade coursework

Feb 2016 - present | **Dartmouth Symphony Orchestra**, Co-Manager
- Coordinate general operations of the DSO, execute hiring of professional musicians
- Resolve personnel conflicts and concerns within DSO, act as liaison between students, conductor and Hopkins Center, and foster community building by facilitating social events and other initiatives

Additional Involvements

Dartmouth | Dartmouth Machine Learning Club (treasurer), DSO (violinist), Divest Dartmouth, Women in Computer Science, Student and Presidential Committee on Sexual Assault

Violin | Have studied solo classical violin for 14+ years, played in numerous chamber groups, violinist in MN Youth Symphonies for 8 years, participated in music festivals, taught violin lessons

Dance | Learned Bharatanatyam, a classical Indian dance, for 12 years - my studies culminated with a 2-hour solo debut performance