# Neerja Thakkar

STUDENT, RESEARCHER, CODER

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# **EDUCATION**

#### DARTMOUTH COLLEGE

June 2019 (expected) B.A. Computer Science Applied Math minor GPA: 3.89/4.0

# ST. PAUL ACADEMY AND SUMMIT SCHOOL

June 2015 GPA: 3.96/4.0

## **COURSEWORK**

Computer Science 1 (Python) & 10 (Java), Linear Algebra, Chemistry 5, Biology 11, Economics 1

# **HONORS/AWARDS**

College: Citation for Academic Excellence in Film 7 (Writing Seminar), Sophomore Science Research Scholarship

High school: Cum Laude Society, Mathematical Association of America Award, AIME qualifier, National Merit Scholarship Winner, National AP Scholar, National Spanish Exam Medal SAT: 2400

# **SKILLS AND PROJECTS**

#### TECHNICAL SKILLS

- + Proficient: Python, Java
- + Experience with: HTML/CSS, XML, Swift, Apache Spark, LaTeX

#### SELECTED PROGRAMMING PROJECTS

- + XML data parser (Java, also involved Spark and SQL)
- + Connect Four game with Alpha-Beta pruning game tree Al (Java)
- + Graphical editor (Java)
- + Implementation of BFS to find shortest paths on a Dartmouth map (Python)

# **WORK EXPERIENCE**

#### SOFTWARE ENGINEERING INTERN

June - August 2016

3M Health Information Systems • Maplewood, MN

- + Modified and updated an XML data parser in Java
- + This software is critical for the entire Data Science Lab

#### CS1 SECTION LEADER

March 2016 - Present

Dartmouth Computer Science Department - Hanover, NH

- + Teach weekly sections in Python on basic programming skills
- + Mentor students through understanding concepts and writing and debugging code
- + Grade students' exams and coursework throughout term

#### CO-MANAGER

Feb 2016 - Present

Dartmouth Symphony Orchestra • Hanover, NH

- + Coordinate general operations of orchestra, execute hiring of professional musicians
- + Resolve personnel conflicts and concerns within orchestra, act as liaison between students, conductor and Hopkins Center
- + Foster community building by facilitating social events

## **RESEARCH EXPERIENCE**

#### BAILEY-KELLOGG RESEARCH GROUP

September 2016

Dartmouth Computer Science Department - Hanover, NH

- Recruited to implement clustering algorithms on T-cell receptor DNA sequences with Python
- + Will help answer questions about similarities and differences in TCR repertoires in different patient populations

#### HUANG RESEARCH GROUP

Oct 2015 - March 2016

Geisel School of Medicine • Hanover, NH

+ Developed a procedure to induce B cells to switch isotype to IgG3, a critical component of a project to develop an HIV vaccine

#### HOGQUIST RESEARCH GROUP

May 2014 - Dec 2014

University of Minnesota Twin Cities • Minneapolis, MN

+ Assisted a 6<sup>th</sup> year PhD candidate, then researched full time, investigating a correlation between NKG2A+ natural killer cell numbers and Epstein-Barr virus severity

# **ADDITIONAL INVOLVEMENTS**

#### AT DARTMOUTH:

- + Violinist in Dartmouth Symphony Orchestra
- + First Year Peer Mentor
- + Divest Dartmouth
- + Women in Computer Science
- + South Asian Student Association

#### **VIOLIN:**

- + Studied solo classical violin for over 13 years
- + Played in numerous chamber groups, in high school and at Dartmouth
- + Violinist in Minnesota Youth Symphonies for 8 years
- + Participated in Stringwood, a summer chamber music festival
- + Taught violin lessons

#### DANCE:

- + Learned Bharatanatyam, a classical Indian dance, for 12 years
- + My studies culminated with a 2-hour solo debut performance