# Chet Bhateja

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## ABOUT ME

Computer science student interested in combining my passion for math and programming.

## EDUCATION

*UC Berkeley BS EECS, 2019-2023*, GPA: 4.00

- In Progress: Discrete Mathematics and Probability Theory, Structure and Interpretation of Computer Programs, Designing Information Devices and Systems I

*BASIS Independent Silicon Valley,* GPA: 3.99

- 18 APs in Math, Computer Science, Physics, Chemistry, English, etc.
- Projects with Runge Kutta and Finite Element methods in Multivariable Calculus and Differential Equations
- Mechanics, Electricity and Magnetism, Relativity, and Modern Physics
- Awards: Calculus, Physics, Game Theory

## WORK EXPERIENCE

*Software Intern, Altair Engineering, Inc Summer 2018*

- Researched compression libraries in Java for efficient file transfer; studied speed, compression ratio, file type
- Implemented proof of concept with multithreading using TCP protocol, showed potential speedup of up to 2x

## ADDITIONAL COURSES

*Stanford Pre-Collegiate Studies*

- Proof techniques in Real Analysis
- Matrix algebra and Eigen theory
- Group Theory and Modern Algebra

*A-Star, AIME Class, AwesomeMath*

- Data structures and algorithms for competitive programming
- Advanced algebra, number theory, combinatorics, and geometry

## PROJECTS

*Groundwater Fluid Flow Model*

- Created finite element model for groundwater flow using differential equation for Darcy's Law in MATLAB

*Nonogram Puzzle Solver*

- Developed an algorithm for solving nonograms in Python based on eliminating possible permutations

*Machine Learning Algorithms*

- Wrote Octave code for neural networks and logistic/ linear regression for Andrew Ng's Machine Learning Course

## SOFTWARE SKILLS

- Languages: Java, Python, NumPy, SciPy, SQL, MATLAB/Octave, Swift, C/C++
- Operating Systems: Windows, Linux
- Tools: Git, Vim

## ACHIEVEMENTS

- Qualified for American Invitational Mathematics Examination (AIME)
- Gold Level, USA Computing Olympiad
- Harvard-MIT Math Tournament 5th Place Team Round
- Stanford ProCo Programming Contest Team: 5th Place Speed Round, 3rd Place Special Round

## EXTRACURRICULARS

- Eagle Scout with 2 Palms
- Kung Fu Black Belt
- President of High School Math Circle
- Helping organize Berkeley Math Tournament

## INTERESTS

- Programming
- Math & Physics
- Board games/puzzles