

## Dakota Chang

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### Education

#### OLIN COLLEGE OF ENGINEERING

Bachelor of Science, Engineering: Computing

Needham, MA

June 2027

#### PHILLIPS ACADEMY, ANDOVER

GPA: 4.1 (4.0 Weighted Scale)

Andover, MA

June 2023

Relevant Course Work:

- CSC630 Machine Learning
  - Programmed gradient descent from scratch through Python, Java, and C++.
  - Utilized machine learning algorithms such as KNN, K-means clustering, etc. for many projects.
  - Collaborated with English and Philosophy teachers to develop a class currently offered at Phillips Academy.
- CSC630 Data Science
  - Created data visualizations using Python libraries (pandas, PyWaffle, matplotlib, wordcloud, Plotly, Altair, etc.), Tableau, and Flourish.
- CSC630 Information Theory, CSC630 Language Theory, MTH650/660 Multivariable Calculus and Linear Algebra

### Skills

**Technical:** Python, Java, HTML/CSS/JS, R, SQL, DOT, Julia, MATLAB, Kubernetes, Git, Kubernetes, C++, and Ruby

**Language:** English (Native), Chinese [Cantonese or Mandarin] (Native), Spanish (Working Proficiency)

### Experience

#### Olin ART Lab

Needham, MA

#### Student Researcher

Oct 2023 – Dec 2023

- Conducted machine learning research applied to problems including air quality data analysis.

#### BootstrapWorld

Remote

#### Machine Learning Internship

Jun 2022 – Sep 2022

- Engaged in a comprehensive 2-week-long workshop designed to train AP Statistics and Computer Science educators in integrating computer science concepts into their curriculum.
- Developed 2 lesson plans aimed at 12–18-year-olds that incorporates machine learning through activities developed using Racket and Python.
- Collaborated with computer science teachers and created a simplified version of many machine learning algorithms using the education-focused coding language Pyret to complement the classes.

#### The Coaching Dot

Hong Kong, China

#### Web Managing and Data Science Internship

Dec 2020 – Sep 2021

- Rebuilt company website using HTML/CSS/JavaScript and WordPress.
- Started and led the data science team to analyze Facebook marketing data through Python and ML and devised a strategy that increased social media engagement by up to 50%.
- Received one of the three gold awards for interns within my cohort (highest award).

### Leadership & Activities

#### Public Interest Tech Project Team (PInT)

Needham, MA

#### Member of Organizing Team, Member of Hydroponics Electrical Sub Team

Sep 2023 – Now

- Engineered a specialized library enabling communication between a MongoDB database and a PCB board.
- Spearheaded documentation practices within the team and led re-documentation of legacy code.

#### The Phillipian

Andover, MA

#### Digital Editor

Dec 2021 – Jan 2023

- Analyzed and engineered data from a survey with 956 respondents and 156 questions.
- Received NASPA award for graphs and data engineering. (<https://github.com/phillipian/SOTA-2022> )