

# Santi Santichaivekin

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## Education

**Harvey Mudd College**

B.S. in Computer Science, Major GPA 4.00 (Cumulative GPA 3.73)

Claremont, CA

Class of 2021

## Coursework

**In progress:** Computer Systems, Science of Debugging, Phylogenetic Tree Reconstruction (Independent Study)

**Completed:** Data Structures and Program Development; Multivariable Calculus; Intro to CS (Advanced); Computability and Logic; Probability and Statistics; Linear Algebra; Differential Equations

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## Skills

Proficient : C++, Python | Knowledgeable: C, C#, Ruby, Java, JavaScript, Bash, Prolog, R, web development

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## Experience

**CS Tutor/Grader**, *Harvey Mudd College*, Claremont, CA

Spring 2018 - Present

- Tutor and grade Computability and Logic class which teaches proof methods, automata, prolog, and computability theory.
- Tutor and grade CS For Insight class which focused on scripting and using python libraries for everyday tasks such as file management, web-scraping, machine learning, and HTML generation. Used Python.

**Software Engineer Intern**, *Microsoft*, Bellevue, WA

Summer 2018

- Implemented an event queue to perform layout calculations in the background across multiple frames. This makes complex visual transitions in Microsoft Whiteboard application more responsive. Used C#.

**Team Leader**, *Thailand National Software Contest 2016*, Bangkok, Thailand

Spring 2016

- Arranged monthly meetings for 3-person team and headed application development.
  - Designed a system for Thai word segmentation using maximum dictionary matching and exhaustive search in JavaScript.
  - Deployed a web application to analyze the analyze rhythms, sounds, rhymes, and alliterations of Thai poems using the International Phonetic Alphabet (IPA).
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## Personal Projects

**Halite3 AI Competition Bot** (github.com/ssantichaivekin/halite3)

Fall 2018

- Written evaluation functions to plan ship movements and navigate them around the game map without colliding. Used Python and then switched to C++.
- Used Evolutionary Algorithm (Python) to fine-tune hyperparameters on DigitalOcean server.
- Finished with rank 201 out of 4014 total participants.

**Text to Color Tone** (github.com/ssantichaivekin/text-to-color-tone)

Summer 2018

- Used Google Custom Search API and k-nearest neighbor algorithm to find a color tone of any text and display it on screen using matplotlib python library.
- Computed the color tone of different word category such as adjectives, nouns, verbs, words that start with "a", and words with first vowel sound "ow", using NLTK dictionary to group words and Digital Ocean cloud server to download images and perform calculations.

**IPython Chemistry Calculator** (github.com/ssantichaivekin/chem-calculator)

Spring 2018

- Developed a small python library to help with chemistry calculations. The project uses regular expression to read chemical formulas and BeautifulSoup to scrape Wikipedia for mass and thermodynamics data.
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## Honors and Awards

5<sup>th</sup> place in ACM-ICPC Contest SoCal Region, 2018

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1<sup>st</sup> place in Harvey Mudd College Microsoft Coding Competition, 2017