Santi Santichaivekin

s.santichaivekin@gmail.com • github.com/ssantichaivekin • 347-401-3715

Education

Harvey Mudd College, Claremont, CA — May 2022
B.S. in Computer Science, GPA 3.81

Coursework: Advanced Algorithms; Complexity Theory; Operating Systems; Digital Electronics; Science of Debugging; Software Development; Data Structures; Machine Learning and Search; Differential Equations; Linear Algebra

Skills

Proficient: Python, Java | Prior Experience: JavaScript, React, NodeJS, Go, C++, C, Bash, SystemVerilog, SQL, Kubernetes

Work Experience

Software Engineer, *Plaid*, San Francisco, CA — July 2022 - Present

CS Tutor/Grader, *Harvey Mudd College*, Claremont, CA — January 2018 - May 2022

- Tutored and graded Advanced Topics in Algorithms, Algorithms, Computer Systems, Data Structures, Computability and Logic, and Python Scripting.

Software Engineer, *Line Man Wongnai*, Bangkok, Thailand — November 2020 - May 2021

- Worked as a backend software engineer on the company's restaurant management system. Worked on claims & refunds, revenue calculations, admin website, reports, and referral system. Used Java, NodeJS, SQL, Kubernetes, and React.
- Improved documentation and wrote remote debugging scripts for three backend services.

Research Assistant, *Harvey Mudd College*, Claremont, CA — May 2020 - July 2020

- Managed a team of six under professor supervision to develop and release Empress—a Python application that helps biologists understand how species coevolve. (`github.com/ssantichaivekin/empress`)
- Made key architecture and style decisions, managed GitHub issues and pull requests, led rigorous code review processes.
- Created a pipeline for testing, freezing, packaging, and signing the application using Pyinstaller and Github Actions.
- Held Zoom information sessions on Git, GitHub, text editors, integrated development environments, best software engineering practices, and debugging tools.

Software Engineer Intern, *Uber ATG*, San Francisco, CA — June 2019 - August 2019

- Reduced the number of geopositional waypoints sent over the network for self-driving cars navigation by over 50%.
- Developed metrics for monitoring the consistency of self-driving car constraints such as "do not take unprotected left turns" and "do not enter school area" among different routing services and display them in Grafana. Used Go and Java.

Software Engineer Intern, *Microsoft*, Bellevue, WA — May 2018 - August 2018

- Implemented an event queue that improved the responsiveness of complex visual transitions in Microsoft Whiteboard application by performing layout calculations in the background. Used C#.

Selected Publications

Santichaivekin, S., Yang, Q., Liu, J., Mawhorher, R., Jiang, J., Wesley, T., Wu, Y., & Libeskind-Hadas, R. *eMPRess: A Systematic Cophylogeny Reconciliation Tool*. Bioinformatics, btaa978 (2020).

Santichaivekin, S., Mawhorter, R., & Libeskind-Hadas, R. *An efficient exact algorithm for computing all pairwise distances between reconciliations in the duplication-transfer-loss model.* BMC Bioinformatics 20, 636 (2019).

Clinic Experience

Google Better Together, *Harvey Mudd College*, Claremont, CA — Fall 2021 - Sping 2022

- Work with the Google Better Together Team to expand the capabilities of the Google ecosystem by improving multi-device experiences on Windows.

Additionals

Open Source Contributions: Pyinstaller (1 bugfix), Nltk (2 bugfixes)
2411^{th} place in Google Code Jam Round 2 (Top 94^{th} percentile) — Fall 2021
201^{st} place in Halite 3 AI Competition (Top 95^{th} percentile) — Fall 2018
5^{th} place in ICPC Southern California Regional Contest — Fall 2018
1^{st} place in Harvey Mudd College Microsoft Coding Competition — Fall 2017