Matthew Wang

Former CS teacher looking for SWE / Data Sci role

📞 +1-443-643-8588
📧 wang.matthew.h@gmail.com
⚙ /matthew-h-wang
in /wang-matthew-h
⚙ /atcs-wang
🌐 matthew-h-wang.github.io

> For 5 years, I've taught some very smart high schoolers how to code. I've become a fast learner of new tech and an effective communicator of complex ideas, just to stay ahead of my students. Now, I want to learn how to be a software engineer or data scientist at industry scale. I love collaborating, and am looking for a team with opportunities for both mentorship and self-initiative.

</> Relevant Experience

Bergen County Academies
CS Teacher for the Academy of Technology and Computer Science

Sep 2018 – Jun 2023
Hackensack, NJ

> Revamped *Web App Dev* elective sequence, updating tech stack from using PHP to **NodeJS**
>   * Integrated 3rd-party authentication [Auth0] and cloud deployment [AWS, Heroku, Railway]
>   * Condensed curriculum into a set of comprehensive tutorials (⚙ /inventory-webapp-tutorial-series)
>   * Changes led to significant increase in quantity and quality of web apps built for *CS Capstone* (see below)
> Dramatically restructured *CS Capstone*, the culminating 12th-grade team project course, to better guide students through the process of building complex apps for clients by incorporating **Agile** management
>   * Managed dozens of projects with varying tech stacks [React, Django, Flask, mongoDB, Firebase, etc.]
> Designed original curricula for new *Artificial Intelligence* and *Machine Learning* electives in **Python**
>   * Built interactive visualizers for search & game algs as demo & assignments (see PROJECTS)
>   * Designed series of Colab notebooks [pandas, scikit-learn] with custom datasets for lessons & projects
>   * Mentored advanced student research projects [Tensorflow, Keras, PyTorch, and DGL]
> Led collaborative effort to update **C** *Programming* course env from Cygwin to an **AWS** EC2 cloud server
>   * Created EC2 image and wrote scripts for automated file system setup, user & key management, and batch grading, improving efficiency of course setup and management
> Contributed to multiple other cross-teacher courses, such as *AP CS A* [**Java**] and *SQL* [**MySQL**], by developing curricula, lessons, coding exercises, test cases, and auto-graders

TripAdvisor
Data Science Intern

Jun – Aug 2016
Newton, MA

> Developed new models for customer value estimation based on SEM data [**Python, R, Hive, Google Ads**]

Logos
Software Dev Intern

Jun – Sep 2015
Bellingham, WA

> Developed song file parsers and a live Twitter wall for Proclaim presentation software [**C#, JS**]

⚗ Projects

SongSets
⚙ /matthew-h-wang/songsets 🌐 songsets.up.railway.app

> Web app [**NodeJS, MySQL**] for band members to collaboratively build setlists & analyze song usage
> Personal project, inspired by my wife and I's need to plan & track church music across weekly services

AI Algorithm Visualizers
⚙ /atcs-wang/AI_Lab1_Search ⚙ /atcs-wang/AI_Lab2_Games

> Interactive visualizers [**Python**] for search & game algs, designed for demos & assignments for AI elective
> Abstract & extensible framework allows algorithms to apply across multiple visual environments

🎓 Education

Princeton University
Princeton, NJ

Bachelor of Science and Engineering in Computer Science - 3.7 GPA , Magna Cum Laude — May 2016
Certification in Teacher Preparation in Mathematics — May 2017

Coursework includes : A.I., M.L., Information Security, Theory of Algorithms, Functional Programming, Computer Architecture, Graph Theory, Combinatorial Math, Probability & Stochastic Systems, Linear Algebra