

Santa Clara, CA 95051  
(805) 637-1617

Dear Hiring Team:

I am writing to express my interest in the Software Engineer position, as an M.S. student in Electrical Engineering at Columbia University with a Bachelor of Science degree at the University of California, Santa Barbara. I have acquired plenty of skill sets that make me an ideal candidate for this position. My internship at AWS as a Software Development Engineer and internship at Deep Chem as a Python developer made me confident with working on big projects individually and working in a team.

I just finished my summer internship at AWS as an SDE Intern. I work in a team that protects AWS and our customers from network attacks. My internship project is to create an Automatic Reboot System that checks the status of our devices globally and reboots eligible devices with adjustable speed and settings. The reboot will never influence our services and the system is distributed to more than 10K devices in production. I have gone through the entire software development cycle: Design review, Implementation, Unit test, Integration test, Code Review, push to the pipeline, and deployment to production. This project used Python, Java, XML, and multiple external/internal AWS tools/services. I got a strong inclined result from my manager.

My mastery of Python is also illustrated by my work at DeepChem. In the summer of 2022, I designed and developed a chemistry calculation task distribution platform from scratch. Our platform would distribute calculation jobs automatically among four calculation servers. Our work greatly improved the calculation efficiency since we would always keep the server running in the most occupied way 24/7. Also, the calculation department could now submit calculation jobs directly to our platform and queuing future tasks so that non-business hours could be utilized. Pulse does not need to run tasks one by one and check available cores for multiple calculation servers. Aside from coding, I am in charge of leading our 3 people development team. I always communicate with the manager as a team representative because I am fully aware of each person's responsibilities.

My JavaScript skills could be shown case with my full stack course project at Columbia University. I processed data with Spark and then wrote a backend API with Flask. My frontend JavaScript program would then fetch data from my API and display them to the user in streaming miner. This project could visualize NYC's subway traffic at different times. My project is another great demonstration of my proficiency in Python. I create a web application with a streamlit package in Python. With my application, users could see data analytics about used car listings in the U.S. and find cars they preferred. So far, I have finished 9 projects in total. They demonstrate skills in web application development, backend API and database, deep learning, computer network, and much more. Feel free to visit my portfolio at <https://yutao-zhou.github.io/CV/>.

My experience in AWS, DeepChem, and my projects have prepared me to immediately join your company after graduation. It would be my pleasure to talk with you. Do not hesitate to contact me if you have any questions. I can be reached at (805) 637-1617 or email me at [yutaozhoucolumbia@gmail.com](mailto:yutaozhoucolumbia@gmail.com). Thank you for your time and consideration.

Sincerely,

Yutao Zhou