----- Previous experience -----

My previous experience can be summarized in 4 groups:

1. Architecture and development of web platforms. I have past experience architecting and developing platforms from scratch for startups and NGOs. These usually include multiple frontends (React, React Native, Vue) and a GraphQL backend (Redwood, NestJS, TypeScript, Prisma, MongoDB, PostgreSQL). In some instances, this also includes smart contract development.

2. Algorithmic Work. Examples: Approximated the TSP problem to create delivery routes for a fleet of trucks (TypeScript, C++), developed an algorithm that built information graphs for patients from EHR databases (TypeScript), and parallelized matrix multiplication and graph analysis code (C++).

3. Data Analysis. Examples: Analyzed stock prices, predicted US and Japanese bond yields, fitted parametric models to real-world data, removed seasonality from time-series data, and improved the clarity of satellite images (Python, Pandas, R).

4. The intersection of ML and SWE. Examples: Built custom-built CI/CD pipelines to streamline model training and deployment (TypeScript, Commander, AWS Step Functions), and created a software platform leveraging NLP to automate hospital patient intake (Redwood, ChatGPT, SendGrid).

If needed, I can provide more information on any of these points.

----- Interests for this internship -----

I am becoming increasingly interested in machine learning models due to my courses in statistics and would love to develop a stronger skillset in that area. This includes problem definition, model creation and training, as well as the development of the infrastructure required to take said models to production.

Another topic of interest is low-level programming, especially when used for designing low-latency systems. My experience is almost exclusively implementing algorithms in C++, but it would be awesome to see how a full system can be implemented at low level (network IO, database operations, etc.).