# Coding Challenge Guide

This guide aims to provide some extra context to the coding challenge, in the hope it will help guide your solution to best show your capabilities.

The challenge you are attempting is a general test we run across many different teams and roles, tailoring your solution to best fit this role and the team, will set you up for success. We are really looking forward to seeing what you develop!

### The Team

We are a diverse, full stack team of talented and experienced engineers. We own a product that is built almost entirely on LLMs, RAG and agentic pipelines. We have researchers developing brand new cutting edge solutions, Al Engineers taking research and making it ready to deploy and ML Engineers guiding and implementing the systems that let this all run.

As such we develop quickly, meaning like all mature teams, we have some tech debt and code that could use refreshing, while also building services with the latest technologies and frameworks.

#### The Role

We are currently looking for a Senior Machine Learning Engineer. So what does that mean? We are looking for a candidate who is well versed in productionising and maintaining Machine Learning and Al solutions.

We have a diverse team of excellent engineers but you will work most closely with AI Engineers and other ML Engineers.

We are looking for someone who will truly raise the bar of our team by guiding us with best practices, state of the art solutions and having a strong focus on all aspects related to system design and maintenance.

We all write production code, design and develop new systems and are always working to improve all aspects of our code and Engineering, we need someone who can really add to these efforts, not just lend a helping hand.

#### What We Look For

Clear experience and expertise with:

- LLMs and machine learning
- Python (and all that comes with)
- Engineering best practices
- Careful use of time and energy to best display your ability
- Engineering decisions that reflect senior level best practices and considerations of productionisation
- Solutions that (with a few more hours) are ready to deploy

## Consider you Time

We want to see ALL the amazing things you can do with your years of experience and expertise, however consider that your time is important. What you decide to show is as important, and displays your decision making and seniority, just as much as how neat your code is and how much you build

#### For example:

- Building 2 different models shows us your capabilities as well as building 10
- Explaining in detail parts you would do with more time or being critical of your own work lends us insight into your thinking
- Spending large amounts of time on complex components if best practices aren't followed or your code has bugs doesn't show a smart use of time

We can't wait to see your solution and we hope this guide will give you context that will help you show off what you can really do and how you will fit into the team.

See you soon!

Zendesk Ultimate Bot Team!