

Spotify – Music for Everyone

Background: (wikipedia.com and glassdoor.com)

Founded in 2006 in Sweden, Stockholm by Daniel Ek, and Martin Lorentzon, Spotify is an “international media services provider”. Since its popularity has grown, the company has 44 offices located in various countries, including the U.S., Canada, Brazil, Hong Kong, and Japan. Its available on multiple operating systems, like Windows, MacOS, Android, iOS and also allows for in browser streaming (except in Safari). The main goal of Spotify is to provide music or podcast to users no matter where they are, what theyre doing, the occasion, or mood of the user. Spotify is tailored specifically for each of its users. (Wikipedia.com)

Company’s Mission – To unlock the potential of human creativity by giving a million creative artists the opportunity to live off their art and billions of fans the opportunity to enjoy and be inspired by these creators. (glassdoor.com)

Engineering Role: Machine Learning Engineer - Personalization (glassdoor.com)

Role Description - “The personalization team makes deciding what to play next easier and more enjoyable for every listener. We seek to understand the world of music and podcasts better than anyone else so that we can make great recommendations to every individual person and keep the world listening. Every day, hundreds of millions of people all over the world use the products we built which include destinations like “Home” and “Search” as well as original playlists such as “Discover Weekly” and “Daily Mix”. We’re a team of technologists, product insight experts, designers, and product managers in Boston, New York, Stockholm, and London.”

Goal – Design, build, evaluate, ship, and refine Spotify’s product by hands-on machine learning development; Work with an agile team of user research, design, data science, product management, and engineering to build new product features; Prototype new approaches and production-ize solutions; Help drive optimization, testing, and tooling to improve quality.

Employee Background – Strong background in machine learning, with experience and expertise in personalized machine learning algorithms; hands on experience implementing production machine learning systems at scale in Java, Scala, Python, or similar languages; Experience with XGBoost, TensorFlow.

Tech Stack: (source: <https://stackshare.io/spotify/spotify>)

Application and Data – Nginx, Bootstrap, Python, Java, PostgreSQL, Amazon S3, Kafka, Cassandra, Hadoop, Google BigQuery, Apache Storm, Google Cloud Data Flow, Google Cloud BigTable.

Utilities – Google Analytics, Amazon CloudFront, Twilio Sendgrid, Optimizely, Lookback, Hub Framework

DevOps – Docker, New Relic, DataDog, Pingdom, Testflight, Apache Cloudstack, Percy, Helios.

Business Tools – G Suite, Adroll, Qualaroo, Desk.com, Blossom

Teams: (sources: <https://corporate-rebels.com/spotify-1/> ; <https://medium.com/scaled-agile-framework/exploring-key-elements-of-spotifys-agile-scaling-model-471d2a23d7ea> ;)

In order to keep a work style that allowed employees to stay autonomous and also be able to continue producing on a large scale without losing agility, Spotify adopted a unique structure that was developed mainly around an agile method. The teams at Spotify are broken into different groups, squads, tribe, chapters and guilds.

Squads - Teams were broken into squads, each squad consisted of about 4 to 6 people. These small, self-organizing, teams are responsible for the development of a project, they developed, tested, and deployed solutions by themselves without having to first report anything to management. Each squad has the freedom of working in their own way, they can choose to either work using scrum sprints, kanban method, a combination of each, or any other way that works for them and allows them to work efficiently and effectively.

Tribes - A collection of squads are divided into tribes based on whatever project they're working on. Each tribe has a leader that is responsible for providing the best work space for their teams. Tribes are mainly designed to be small, about less than 150 people per tribe.

Chapters - Are groups of people who have the same skills or functions. They meet on a regular basis to discuss their areas of expertise and specific challenges and the solutions they can provide. Leaders in each chapter are in charge of developing people, setting salaries, etc, they're also part of a squad.

Guilds - Guilds consist of a group of people that want to share their knowledge of tools, code, and practices. Almost like clubs, guilds have members who are a part of different tribes, or squads. There are work related guilds like Java guild, C++ guild, etc.

Spotify's work style is a unique organizational structure based mainly on the agile method, but also allows for teams to work with autonomy. The main goal for their "work style" was to produce on a large scale, without losing agility.

Notes:

To find the information above I mainly Google searched using queries such as: Spotify engineering roles, Spotify team structures, Spotify tech stack, and just using the company's name. I think the sites that gave me the most useful and detailed information were glassdoor.com, wikipedia.com, medium.com.