

## Introduction

Please take a few minutes to read through this background information on how the Tech Stages work before jumping into the table below. Reach out to Nathan or Josh directly with any questions or comments.

## Goals

The goal of this document is to help you understand what's expected of you, what your advancement path is, and what you need to do to advance. The idea is that you are always looking forward to the next stage if you are interested in advancement.

## Attribute Definitions

**Responsibilities** are what you can expect to be doing at that stage, they will provide opportunities to meet objectives by exercising professional qualities.

**Expertise** is the technical skill expected at that stage. In some respects, this is the least important of the attributes for each stage. Every developer/designer at Chartbeat is capable of acquiring technical skills readily. Technical expertise is further categorized into 4 levels:

- Familiarity: You know what a technology is and what it's fundamental use cases are. You've done some small projects with the technology
- Knowledge: You've done production projects with the technology and are fluent with the syntax and terms
- Expertise: Your understanding of the technology goes beyond the basics, fully understanding the underpinning technologies and performance characteristics

**Qualities** are the least tangible of the attributes and in many cases the hardest to acquire. They encompass your communication, work habits and problem solving approaches.

**Objectives** are specific accomplishments you should be doing regularly at each stage.

## Approach

Your approach to the stage will vary depending on how you are specializing. Expertise is categorized as Data Science, Frontend, Backend and Design, but you are in no way limited in which of these technical skills you wish to acquire. If you are a pure designer or focusing on devops expectations for expertise will be more specialized, but all the other attributes are pertinent.

Your approach will also be slightly different depending on what your personal goals are. You can choose to focus on product development or platform development. You can choose to focus your technical skills broadly or dig into a specific area. You may also choose to veer off the development stages entirely and go into product or sales. These are in no way intended to box you in.

	Responsibilities	Expertise	Qualities	Objectives
Team Member (Stage 1)	<p>All of:</p> <ul style="list-style-type: none"> <li>• Design algorithms as part of product development</li> <li>• Respond to internal and external data requests</li> <li>• Work directly with product management</li> <li>• Code deployment</li> <li>• Code quality and efficiency</li> <li>• Reference senior team members</li> <li>• Documentation</li> <li>• Participate in on-call</li> <li>• Interview New Hires</li> </ul>	<p>At least 1 of:</p> <ul style="list-style-type: none"> <li>• Machine learning knowledge</li> <li>• NLP knowledge</li> <li>• Statistics knowledge</li> <li>• Optimization knowledge</li> </ul> <p>+ At least 4 of:</p> <ul style="list-style-type: none"> <li>• Python knowledge</li> <li>• MySQL familiarity</li> <li>• Git familiarity</li> <li>• Java/Clojure familiarity</li> <li>• Tornado familiarity</li> <li>• Puppet familiarity</li> <li>• Mongo familiarity</li> <li>• Riak familiarity</li> <li>• Redshift familiarity</li> <li>• Kafka familiarity</li> </ul>	<p>All of:</p> <ul style="list-style-type: none"> <li>• Actively seek feedback on design</li> <li>• Develop confidence in providing estimates on personal project work effort</li> <li>• Communicate effectively with tech team</li> <li>• Develop sense of appropriate technical trade-offs in design and implementation</li> <li>• Know in what settings which algorithms are likely to work</li> </ul>	<p>At least 4 of:</p> <ul style="list-style-type: none"> <li>• Contribute code to product development teams</li> <li>• Seamless code reviews</li> <li>• Smooth merge/deploy cycles</li> <li>• Regular interaction with senior team members</li> <li>• Thoroughly document projects</li> <li>• Do tech talk, blog post, or contribute to work-related open source project</li> </ul>
Senior Team Member (Stage 2)	<p>All of:</p> <ul style="list-style-type: none"> <li>• Design new data stores, collection methods, or analytical techniques needed to meet product goals</li> <li>• Provide novel ideas for analytic projects</li> <li>• Reference expert members</li> <li>• Help train new data scientists</li> </ul>	<p>At least 3 of:</p> <ul style="list-style-type: none"> <li>• Machine Learning knowledge</li> <li>• NLP knowledge</li> <li>• Statistics knowledge</li> <li>• Optimization knowledge</li> </ul> <p>+ at least 6 of:</p> <ul style="list-style-type: none"> <li>• Python expertise</li> <li>• Mongo knowledge</li> <li>• RabbitMQ knowledge</li> <li>• Git knowledge</li> <li>• Java/Clojure knowledge</li> <li>• RedShift knowledge</li> <li>• Riak knowledge</li> <li>• Kafka knowledge</li> <li>• MySQL knowledge</li> <li>• Tornado knowledge</li> <li>• Puppet knowledge</li> </ul>	<p>All of:</p> <ul style="list-style-type: none"> <li>• Ability to take modern research papers and implement their techniques.</li> <li>• Comfort talking to press and customers.</li> <li>• Experience and opinions on, data visualization</li> <li>• Proactively provides feedback on design decisions</li> <li>• Proactively provide estimates on personal project work</li> <li>• Communicate effectively within company</li> <li>• Seek to understand and evaluate company goals</li> <li>• Make appropriate technical trade-offs in implementation</li> </ul>	<p>At least 5 of:</p> <ul style="list-style-type: none"> <li>• Successful product cycle launch</li> <li>• Design and execute new product</li> <li>• Regularly participate in code reviews</li> <li>• Participate in setting standards and principles for what we do</li> <li>• Buddy up with new developer</li> </ul>

	Responsibilities	Expertise	Qualities	Objectives
Technical Manager (Stage 3) <hr/> Platform Manager (Stage 3)	<ul style="list-style-type: none"> <li>• Act as Project owner</li> <li>• Plan project development cycle, including task management and estimate planning</li> <li>• Act as expert member</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Developing novel uses of our data for building new product lines</li> <li>• Lead platform team</li> <li>• Oversee platform training</li> <li>• Act as expert member</li> </ul>	At least 1 of: <ul style="list-style-type: none"> <li>• Machine Learning expertise</li> <li>• NLP expertize</li> <li>• Statistics expertize</li> <li>• Optimization expertise</li> </ul> + at least 3 of: <ul style="list-style-type: none"> <li>• Mongo expertise</li> <li>• RabbitMQ expertise</li> <li>• AWS knowledge</li> <li>• Java/Clojure expertise</li> <li>• RedShift expertise</li> <li>• Riak expertise</li> <li>• Kafka expertise</li> </ul>	All of: <ul style="list-style-type: none"> <li>• Ability to serve as a leading voice on behalf of Chartbeat in field of specialization</li> <li>• Ability to develop a strategy around communications</li> <li>• Proactively provide estimates on team project work effort</li> <li>• Consistently sought out as technology leader within tech team</li> <li>• Anticipate requirements based on deep understanding or company goals</li> </ul>	At least 5 of: <ul style="list-style-type: none"> <li>• Successful platform cycle launch</li> <li>• Design and execute new platform</li> <li>• Ensure standards, lead specialist peer group</li> <li>• Hiring, training</li> <li>• Do new hire tech talk</li> <li>• Thoroughly documented platform</li> </ul>
Technical Director (Stage 4)	At least one of: <ul style="list-style-type: none"> <li>• Oversee multiple product development</li> <li>• Oversee multiple product platform teams</li> </ul>		All of: <ul style="list-style-type: none"> <li>• Propose cross-team projects based on knowledge of company goals</li> <li>• Consistently sought out as technology leader within company</li> </ul>	All of: <ul style="list-style-type: none"> <li>• Multiple product/platform cycle launch</li> <li>• Design overarching principles and standards, code style</li> </ul>