

Data Visualization & Design

Week 14

1. Critical skills for a **job in data visualization**?

- Data literacy
- Understanding of user/audience needs
- Storytelling
- Creativity
- Experience with a range of libraries and software (+ ability to self-teach)

Example:

Data Visualization Specialist

Capital One

Data Visualization Specialist

Capital One ★★★★★ 7,477 reviews - New York, NY 10261

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Rather than take orders on what to build, you'll engage users in conversations to uncover how they do their work, what tools they use, how they understand their work, and how they currently solve their problems. You will work to explore pain points and areas for meaningful improvement. We work through a human-centered approach.

Engineering focused specialists will spend the majority of their time finding the shape of data. This entails immersing yourself in and exploring the data. You'll rabidly pull apart and tease out the nuances of the data to understand the breadth, depth, extent, outliers, relationships, and other factors that reveal its structure as a whole. You'll partner with our DataViz Designers to realize high fidelity visualizations.

You will bring solid experience in technologies such as React, D3.js, WebGL, Processing, Three.js, Unity, and/or Python to name a few. Using these technologies and others, you'll construct meaningful, interactive, responsive, frictionless, and succinct visualizations for a variety of subject matters and domains.

Design focused specialists will spend the majority of your time exploring the shape of data visually. You live and breathe in Illustrator, Photoshop, and similar tools. You're comfortable in Excel, Tableau, or similar tools to understand your data. You're passionate about layout, typography, color, and have the expertise and awareness to defend your design choices. You sweat the details, but not at the expense of the big picture. You recognize that data visualization design optimizes for comprehension, engagement, and contextualization, and you've done your homework on perception and cognition.

Basic Qualifications

- At least 3 years of experience working in cross-functional teams
- At least 2 years of experience designing data visualizations or at least 2 years of experience building data visualizations

Preferred Qualifications

Data Visualization Specialist

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Basic Qualifications

- At least 3 years of experience working in cross-functional teams
- At least 2 years of experience designing data visualizations or at least 2 years of experience building data visualizations

Preferred Qualifications

- Bachelor's degree in Graphic Design, HCI, Computer Science or a related field
- 3 years of professional experience in one of the following: data visualization design, graphic design, or creative computing
- 3 years of experience with Adobe Illustrator
- 3 years of experience with front-end CSS coding
- 3 years of experience designing or building data visualizations
- 2 years of experience engineering data visualizations and interactive experiences
- 2 years expertise in Javascript, SQL, D3, React, and Python
- Experience in React, NodeJS, and AWS
- Experience in NLP, AI, and ML

At this time, Capital One will not sponsor a new applicant for employment authorization for this position.

Example:

Data Visualization Engineer, Tableau

Amazon Robotics



Data Visualization Engineer-Tableau

Amazon Robotics LLC ★★★★★ 33,032 reviews - North Reading, MA



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- Bachelor's degree in Engineering, Computer Science or related technical field and 2+ years' experience delivering direct customer support or Master's degree in Engineering, Computer Science or related technical field
- Technical problem-solving and analytical skills
- Excellent written and oral communications skills with the ability to communicate effectively with both technical and non-technical stakeholders
- Knowledge and/or working experience with Relational Database Management Systems (MySQL, Oracle)
- Knowledge and/or working experience with data visualization tools like Tableau
- Knowledge and/or working experience with Linux (RHEL, Ubuntu)
- Ability to work a scheduled shift (may include weekends and/or evenings)

Amazon Robotics designs, manufactures and implements cutting edge technologies within fulfillment centers at the heart of Amazon's core business. We are seeking exceptional and self-motivated individuals to support rollouts of new Amazon Robotics technologies, ensuring that teams have the data they need to successfully deploy technologies to fulfillment centers worldwide.

In this role, you will develop a deep understanding of the AR system, and use data to report on rollout progress and identify issues. Successful candidates will possess a blend of strong technical aptitude, trouble-shooting capabilities and customer-facing skills, along with a passion for cutting edge data visualization and reporting tools.

2. Leveraging D3.js for daily business analysis work?

D3.js is best for **custom displays** with **continually updated data** and a **strong visual** component.

- **Tracking**
 - Interaction with stakeholders/SMEs
- **Analysis**
 - Policy
 - Processes
 - IT Systems
- **Strategy**
 - Project management
- **Communication**
 - Proposal

3. Common problems when designing a financial dashboard?

Most of the common difficulties in financial dashboard design can be mitigated with a **clear understanding of the problem you are trying to solve.**

- Streamlined **workflow**?
- Answer to a specific **question**?
- Interaction with existing **tools**?
- Frequency and granularity of the **data**?
- Where to **innovate**?
- Where to provide the **familiar**?

Still, there are several **recurring challenges** worth mentioning...

- Date ranges
- Color palette
- Filtering
- User flows
- State awareness

4. Visualization tools in R?

ggplot2
(really)

- ggplot2
- Highcharter
- Leaflet
- RColorBrewer
- Plotly

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