

# Data Science & Software Engineering

# ANATOMY OF A SOFTWARE DEVELOPER

## SALARY

Average salary of a software developer is **\$80,000/year**

## BENEFITS

- Constantly **collaborate** with other developers
- More interpersonal interaction than most tech jobs
- Continual need for **creativity**

## RESPONSIBILITIES

- Design and install software systems
- Constant system **testing and maintenance**
- Solve problems
- Review broken code
- Communicate findings to management

## EDUCATION

- The majority of software developers have at least a **Bachelor's degree**
- More companies are looking for software developers with advanced degrees

## SKILLS

- Understand several programming languages (R, Python, SQL, Hive, etc.)
- Think logically and critically
- Be **detail** oriented
- Be able to look over lots of code and find little mistakes
- Think creatively

## CAREER POSSIBILITIES

- Career Developer
- Freelance Developer
- Entreprogrammers** (entrepreneur/programmer hybrid)



# ANATOMY OF A DATA SCIENTIST

## SALARY

Average salary of data scientists is **\$120,000/year**

## BENEFITS

- Harvard Business Review called data science the **"Sexiest Job of the 21st Century"**
- One of the fastest growing careers in the United States
- 94%** of data science graduates have found jobs since 2011

## RESPONSIBILITIES

- Conduct research
- Extract, clean, and analyze data from varied sources
- Solve problems
- Build automation tools
- Communicate findings to management



## EDUCATION

- 88%** of all data scientists have at least a Master's degree
- 46%** of data scientists have a PhD

## SKILLS

- Programming languages (R, Python, SQL, Hive, etc.)
- Statistics
- Multivariable calculus and linear algebra
- Machine learning
- Software engineering
- Wrangle, visualize, and communicate data to management

## CAREER POSSIBILITIES

- The majority of data scientists work in the **technology industry**.
- Other options include marketing, consulting, healthcare and pharmaceuticals, finance, government, gaming, and many more.

Quelle:



THE COMPUTER MERCHANT, LTD.  
THE IT STAFFING COMPANY

## **Annahme:**

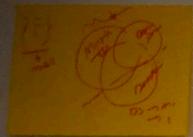
**Beide Rollen sind notwendig,  
um das Produkt erfolgreich zu  
gestalten.**

## **Diskussion:**

**Was müssen wir beachten bei der  
Zusammenarbeit von Software  
Engineers und Data Scientist?**

**Wie können wir die  
Zusammenarbeit fördern?**

## UNTERLASSEN



D. Nach Erkundung  
- Welche Erfassungsdaten  
- Welche Daten sind wichtig  
- mit diesen kann man was tun  
- mit diesen kann man was machen  
=> Es geht um die Lösungen aus der Sicht von A und B!

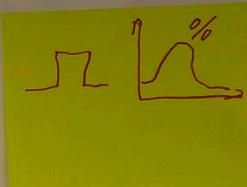
Aktualität  
Reproduzierbarkeit  
der Daten klar

Welche Daten  
Solen/dürken  
verwendet werden?

rest

## MACHEN

1. Fokus auf Endkunde
2. Verständnis der unterschiedlichen Sicht weisen
3. Gemeinsames Erarbeiten der Lösung



DEVOPS &  
INTERDISCIPLINARY  
TEAMS

EIN Team  
XXX  
M M M  
EIN