

2 No Data, no Data Science

– Insights into Handling of Personal Data

(4) The Role of Influencers

E.T. Williams

- 51-jähriger christlich-konservativer Afro-Amerikaner
- Sieht sich selbst als „Reporter for the Common Men“

E.T. WILLIAMS

28,000 Tweets Helped Elon Musk Develop Tesla Cybertruck

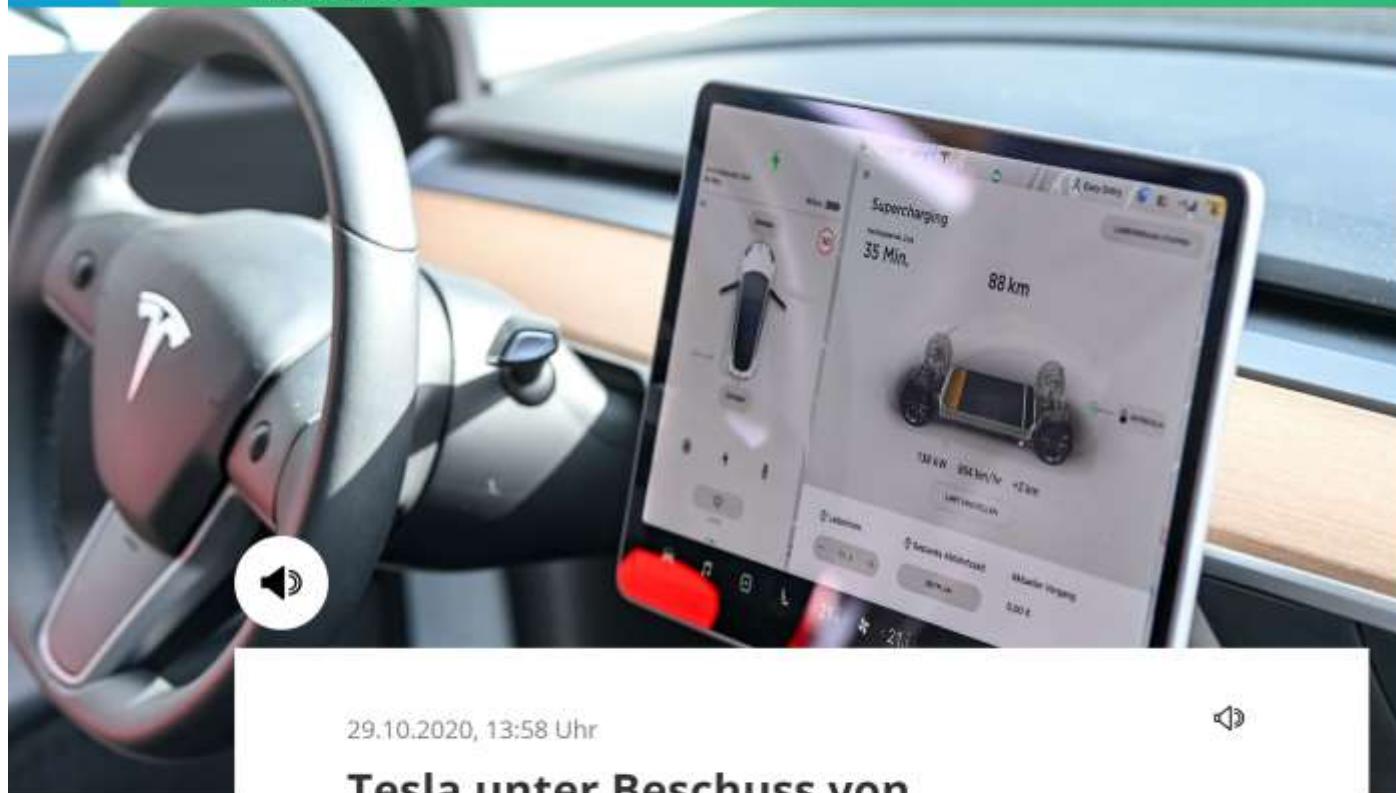
December 9th, 2019 by [Johnna Cisneros](#)

Elon Musk • [@elonmusk](#) 828,198
What would you love to see in a Tesla pickup truck? I have a few things in mind, but what do you think are small, but important nuances & what would be seriously next level?
[View](#) [Reply](#) [Retweet](#) [Like](#)

Miles Modest • [@milesmodest](#) 2,019
First test drive of the Cybertruck and it's amazing. Miles out possible with healthy relationships, however.
[View](#) [Reply](#) [Retweet](#) [Like](#)

deantechnica.com/2019/12/09/28000-tweets-helped-elon-musk-develop-tesla-cybertruck/

WIRTSCHAFT



29.10.2020, 13:58 Uhr



Tesla unter Beschuss von Datenschützern

Der Elektrofahrzeughersteller Tesla bekommt immer mehr Probleme mit deutschen Datenschützern. Einem Gutachten zufolge verstößen die Modelle gegen die Datenschutzgrundverordnung. Auch bayerische Behörden befassen sich jetzt mit dem Problem.

BILD

Tesla unter Beschuss von Datenschützern

© Mathias Flasskamp/BR

SCHLAGWÖRTER

Mobilität 282

Autoindustrie 1197

Verkehr 5927

Auto 1650

Tesla 280

Datenschutz 653

VON



Mathias Flasskamp



28,000 Tweets Helped Elon Musk Develop Tesla Cybertruck

December 9th, 2019 by [Johnna Crider](#)



In a [heartfelt article](#) written by Kristen Nettlen on Medium, she explains why the Cybertruck is the truck for a hero. When one thinks of a hero, we may think of police or firefighters or even our own personal heroes who have impacted our lives. Elon Musk is one of mine and is a hero to millions of people around the world for all the good he has done through his companies.

Elon Musk  @elonmusk · 6/26/18
What would you love to see in a Tesla pickup truck? I have a few things in mind, but what do you think are small, but important nuances & what would be seriously next level?
26.8K 4,827 53.7K

Mike Maat @metricmikey · 7/6/18
Flat bed with no wheel well humps would be amazing. Maybe not possible with width restrictions, however.
0 0 0 0



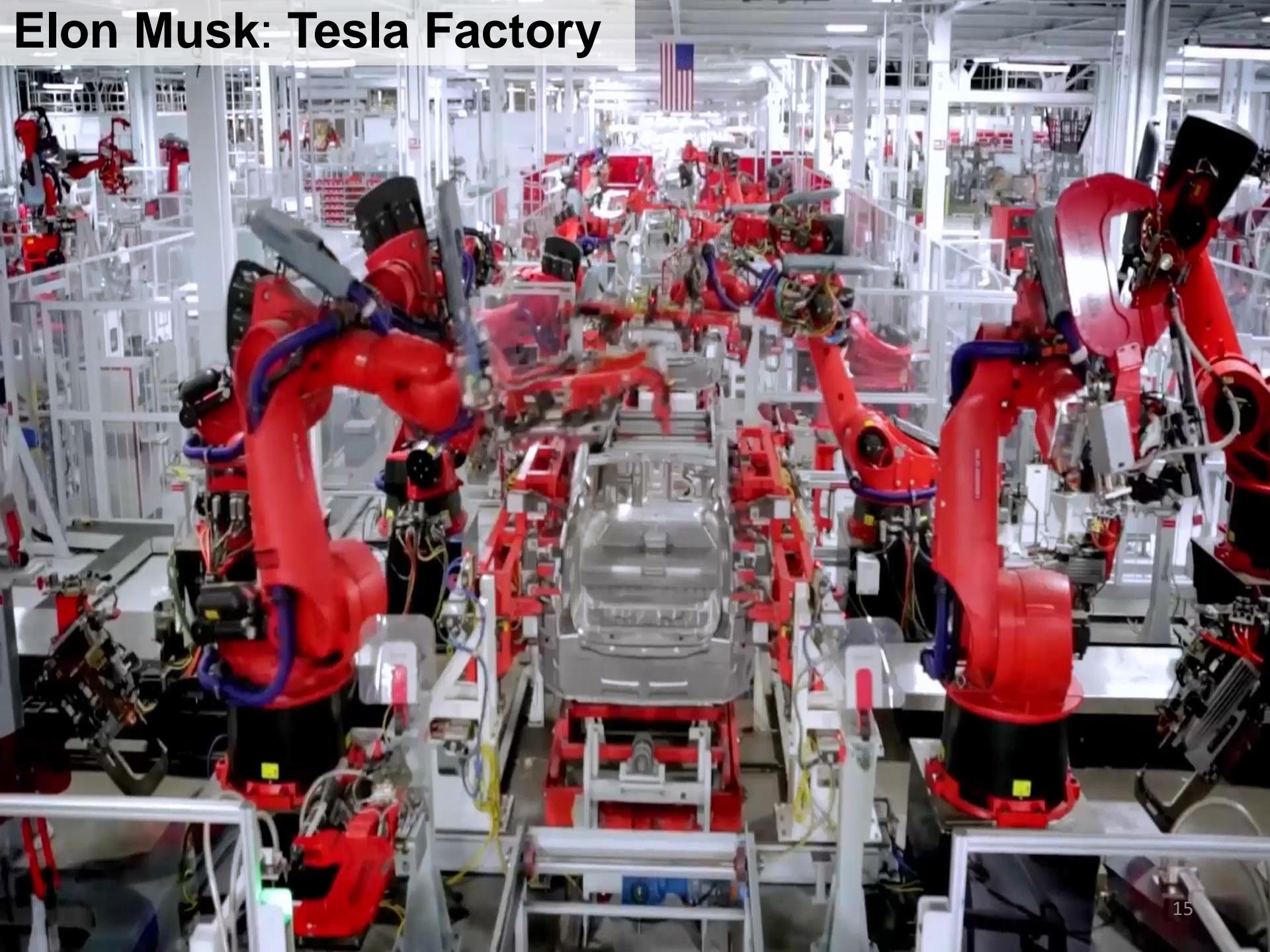
Elon Musk: No Value except Illegal Transactions



VF.COM
41

Elon Musk (CEO von Tesla und Space X) im Dezember 2016 zum Thema Bitcoin

Elon Musk: Tesla Factory



Elon Musk: Tesla Gigafactory Shanghai



Elon Musk: Energiespeicher

THE WORLD'S LARGEST
LITHIUM ION BATTERY



Elon Musk 
@elonmusk



Antwort an @mcannonbrookes

Tesla will get the system installed and working 100 days from contract signature or it is free. That serious enough for you?

3:50 vorm. · 10. März 2017



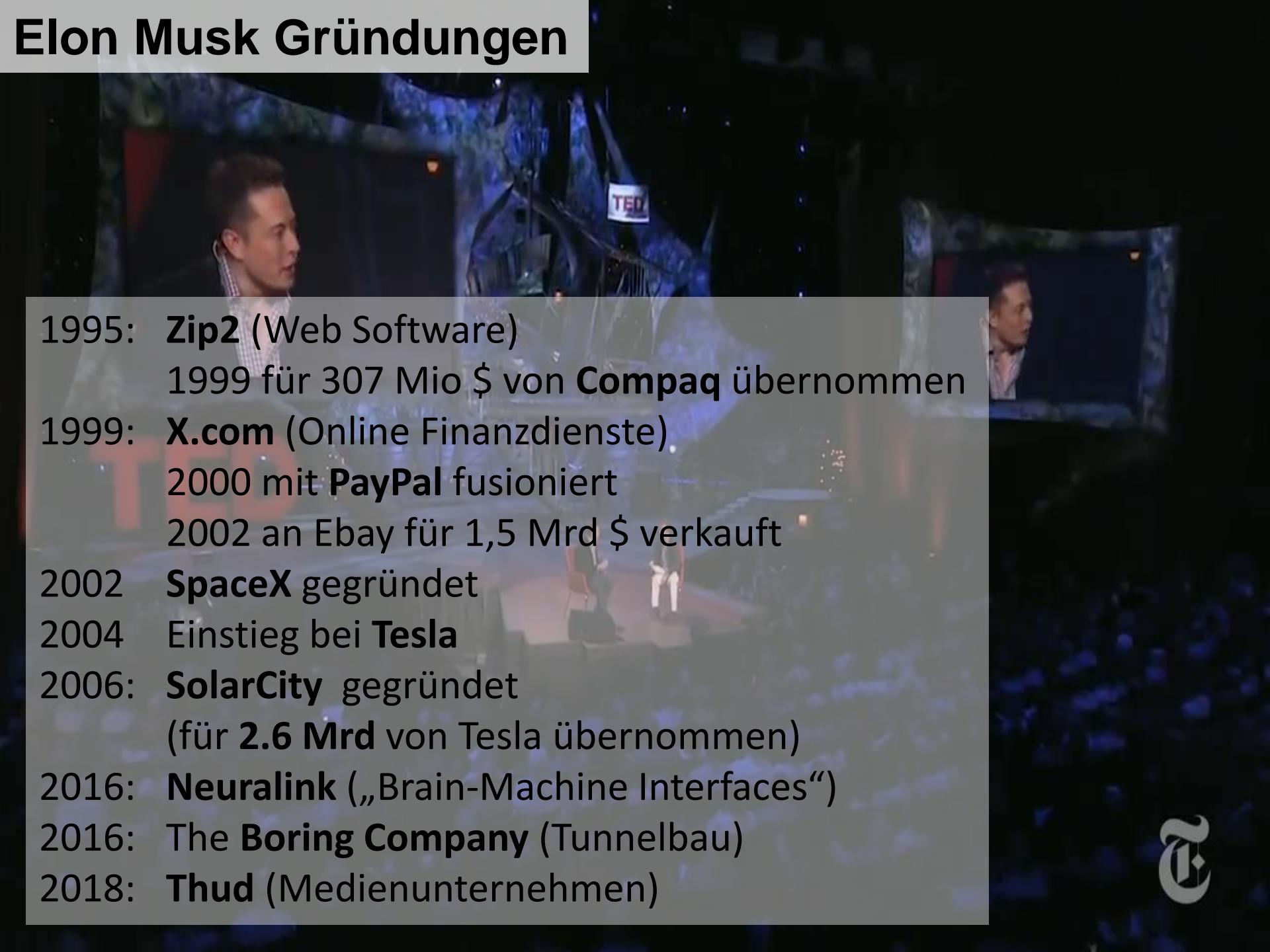
15.264

6.737 Personen twittern darüber

Elon Musk: Tesla Solardächer



Elon Musk Gründungen

- 
- A photograph of Elon Musk speaking on stage at a TEDx event. He is wearing a light-colored shirt and a bow tie. The stage has a large circular screen behind him displaying a blue-toned image of a city skyline or industrial area. A small TEDx logo is visible on a banner in the background.
- 1995: **Zip2** (Web Software)
1999 für 307 Mio \$ von **Compaq** übernommen
 - 1999: **X.com** (Online Finanzdienste)
2000 mit **PayPal** fusioniert
2002 an Ebay für 1,5 Mrd \$ verkauft
 - 2002 **SpaceX** gegründet
 - 2004 Einstieg bei **Tesla**
 - 2006: **SolarCity** gegründet
(für 2.6 Mrd von Tesla übernommen)
 - 2016: **Neuralink** („Brain-Machine Interfaces“)
 - 2016: **The Boring Company** (Tunnelbau)
 - 2018: **Thud** (Medienunternehmen)



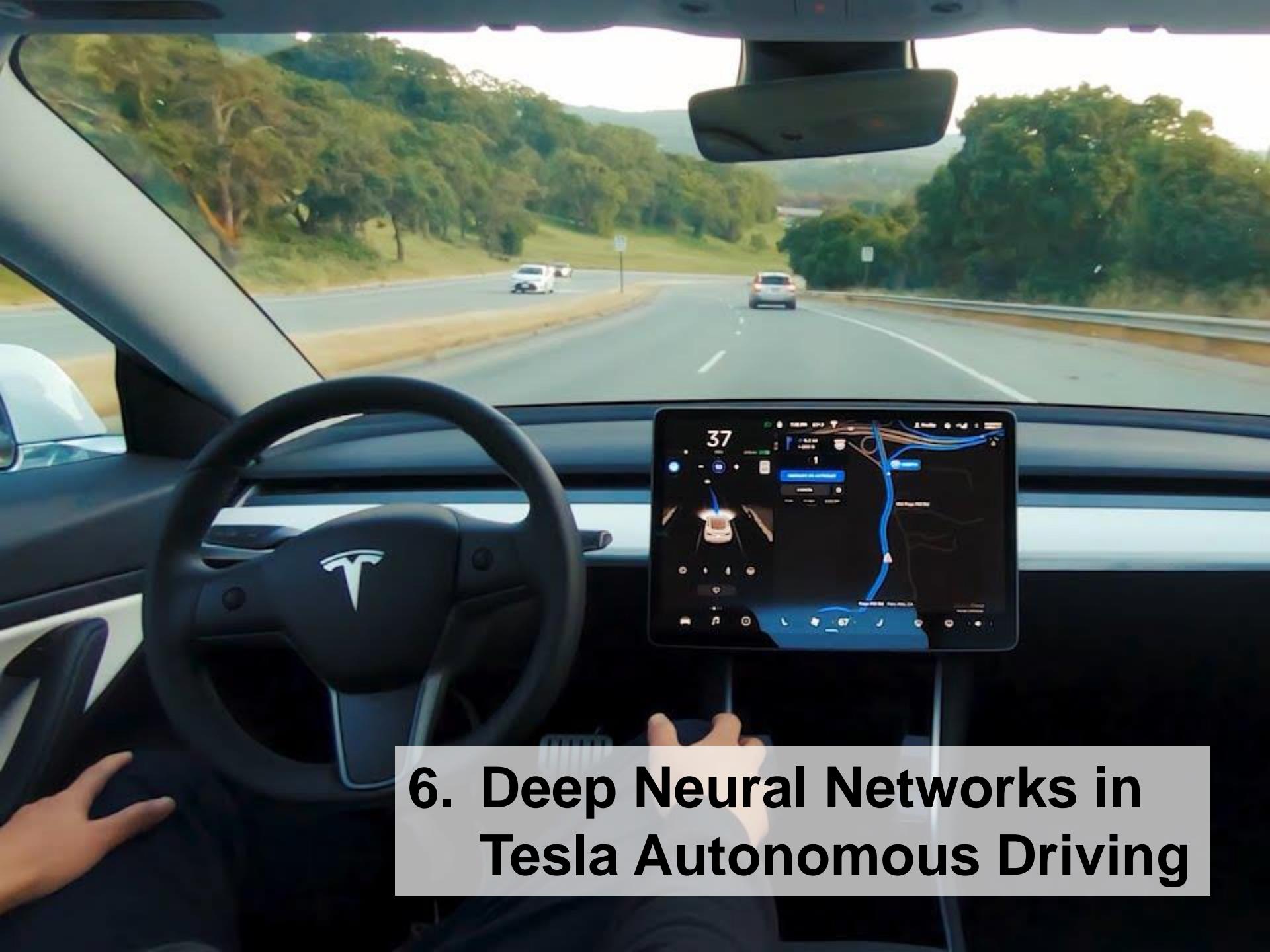
8 Machine Learning I

- Neural Networks & Deep Learning

Content:

1. Motivation
2. Basics of
Neural Networks (NN)
3. TensorFlow Playground
4. Basics of Convolutional
Neural Networks (CNN)
5. Deep Learning (DL) by
Deepmind: AlphaGo, Zero...
6. Deep NN in
Tesla Autonomous Driving
7. Summary

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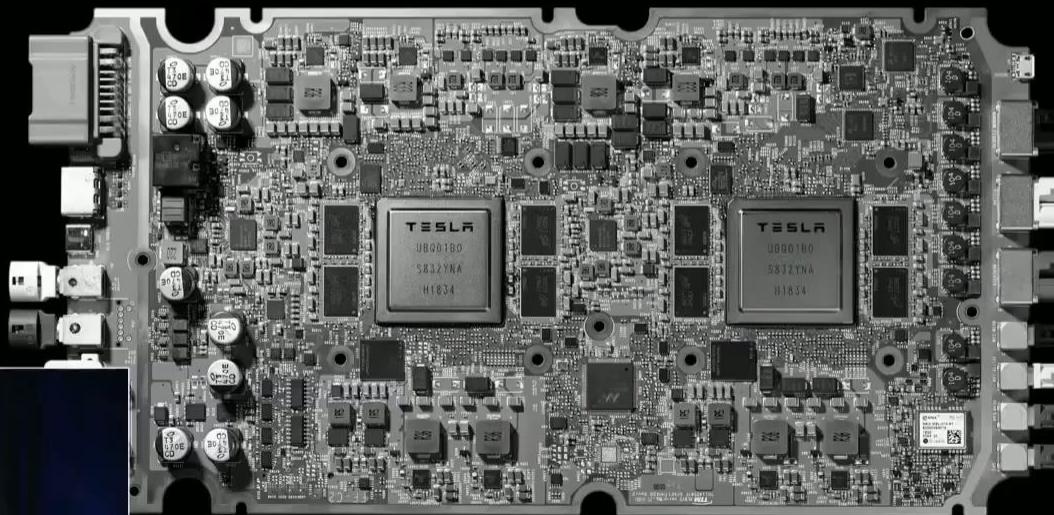


6. Deep Neural Networks in Tesla Autonomous Driving

Tesla Autonomy Day, 23. April 2019

TopSpeed

FULL SELF-DRIVING COMPUTER



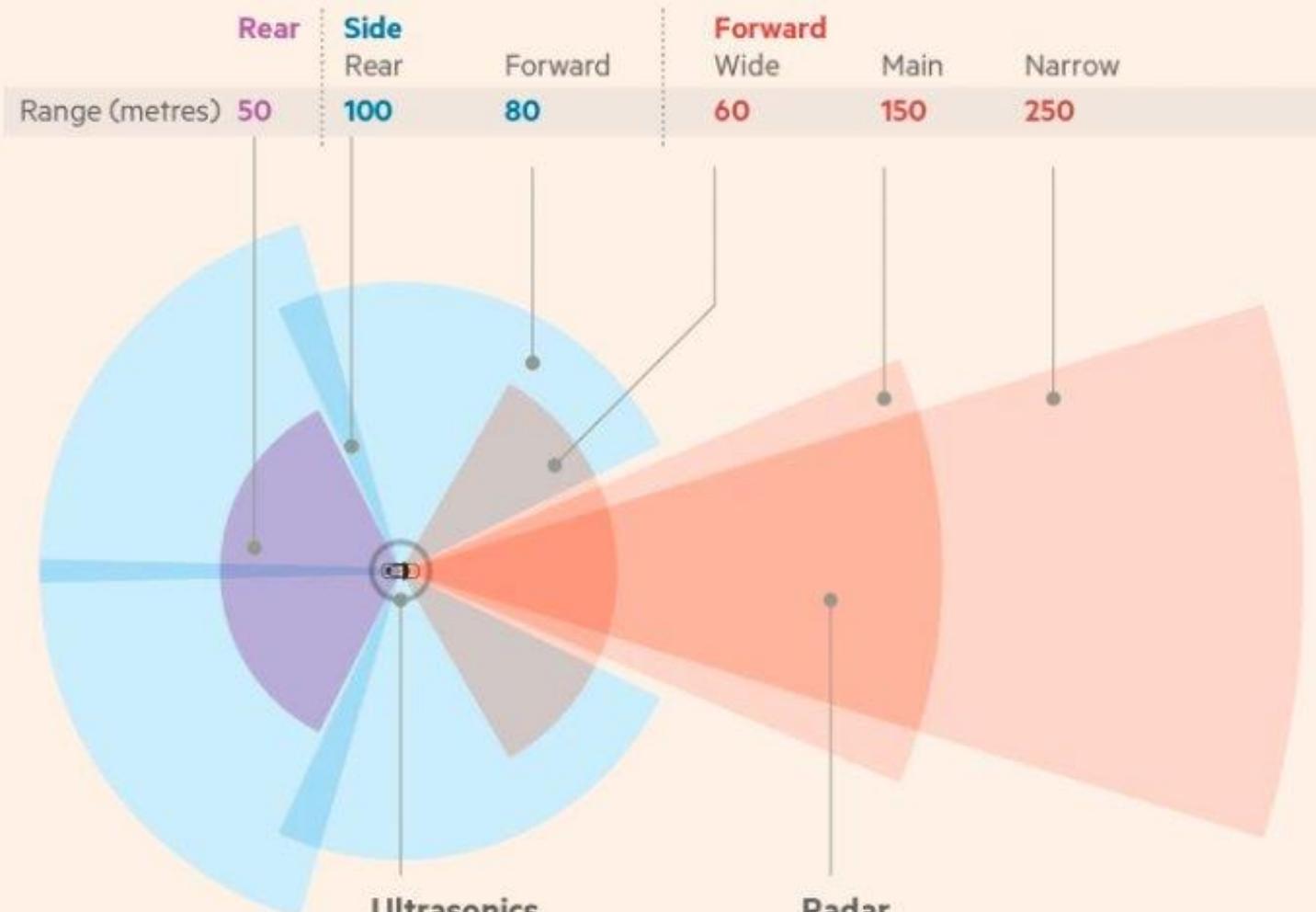
TESLA LIVE

Tesla Autonomy Day 2019 event in under 5 minutes
https://www.youtube.com/watch?v=QIU_uxuMjgg

Ready for autonomous driving

Like the other Tesla models, the 3 is equipped with all the hardware ready for autonomous driving

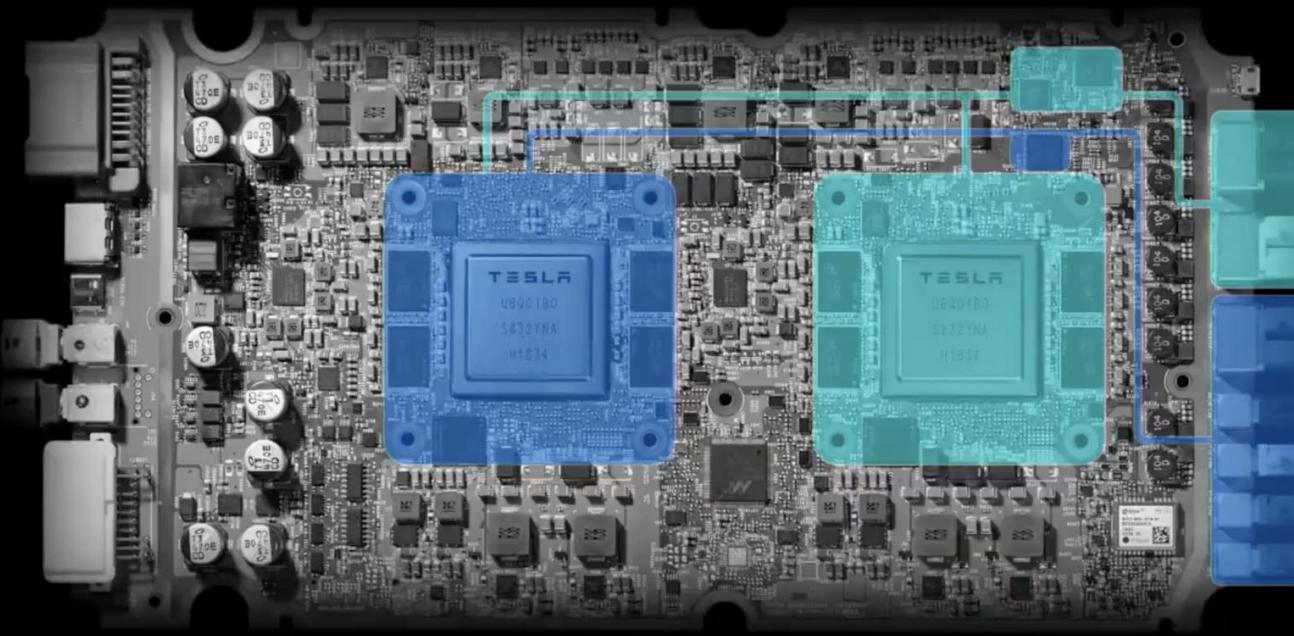
Cameras (eight in total)



Tesla Autonomy Day, 23. April 2019

Ein Spezialhardware unterstützt die KI

PERCEIVE



TESLA LIVE

Radar – GPS – Maps – IMU – Ultrasonic – Wheel Ticks – Steering Angle

Full Self Driving (FSD) Hardware: 2 Computer, Video-Anschlüsse (rechts)
144 TOPS (Trillion Operations Per Second)
Redundante Architektur, Shadow Mode

AP

What Tesla Autopilot Sees

Ego Speed: 45.55 MPH

time: 1545.441322000

CAL P 0.60 Y 1.20 R 0.00 deg

Vision fps: 18.05 Draw fps: 17.67 Display fps: 21.34

NL(0.00), E(0.93), F(0.07), TF(0.00), S(0.00)

NRW: FLP(0.00), FRP(0.00)

CutInExcited (Prb 0.56)

+0.0001 AUTO_HIGH_BEAM

+0.0000 BLINDED

+0.0002 RAINING

+0.0000 TIRE_SPRAY

+0.0013 WET_ROAD

0.7902 RESTRICTED

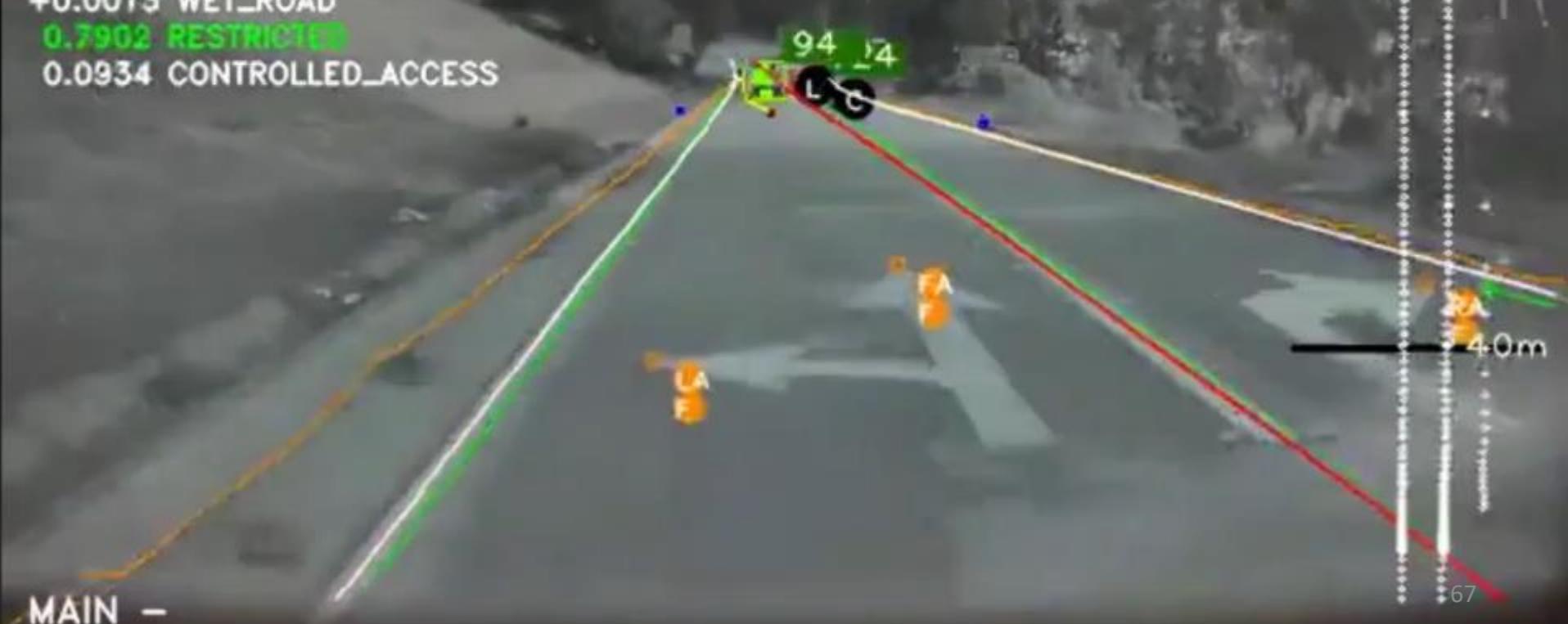
0.0934 CONTROLLED_ACCESS

L:0 R:0 F:2 ON:0

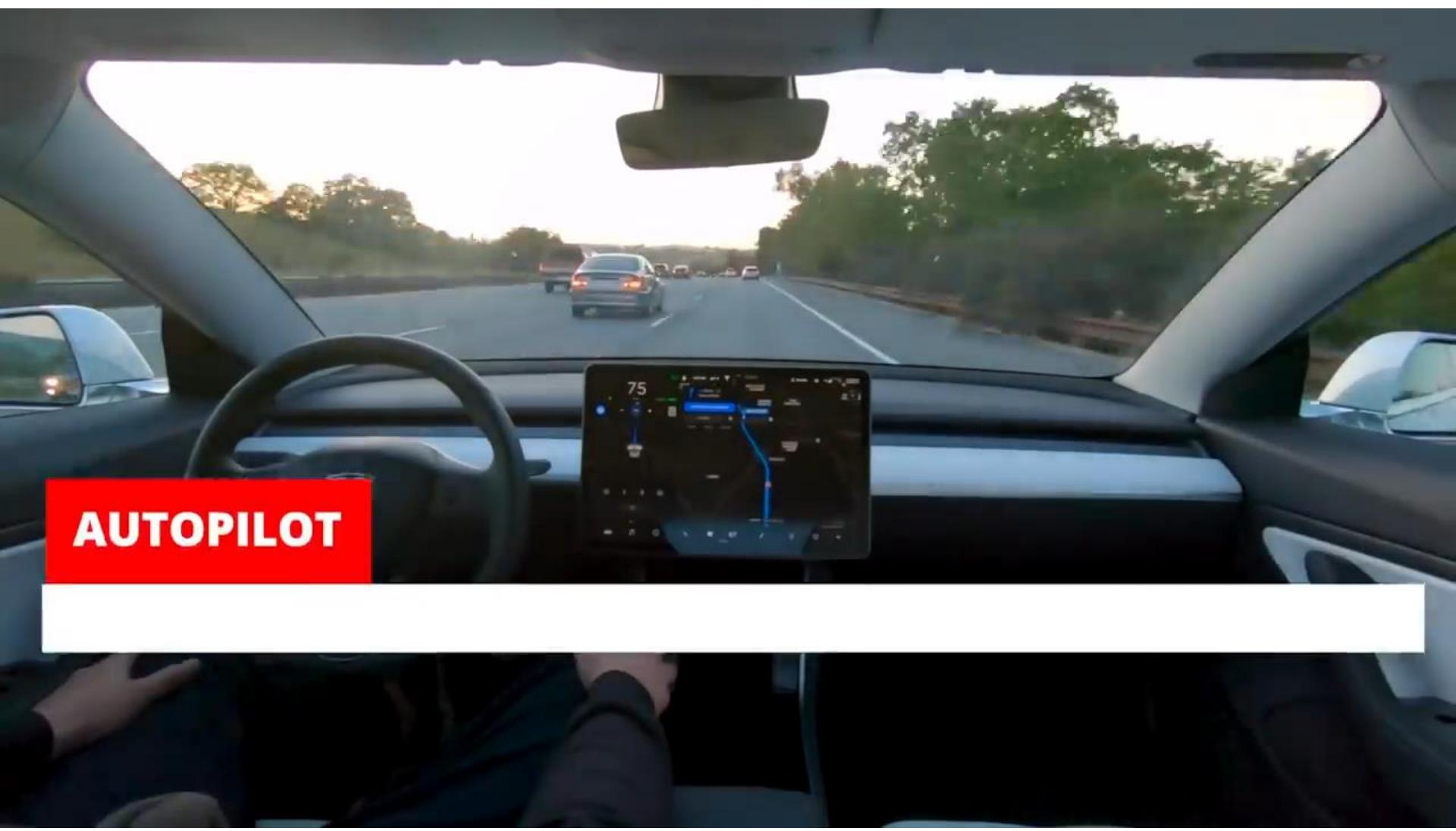
W:8.2 AP:1.0 I:0

VS: 46.7 MPH St: 1

merge: 1.0 f 160.2 R



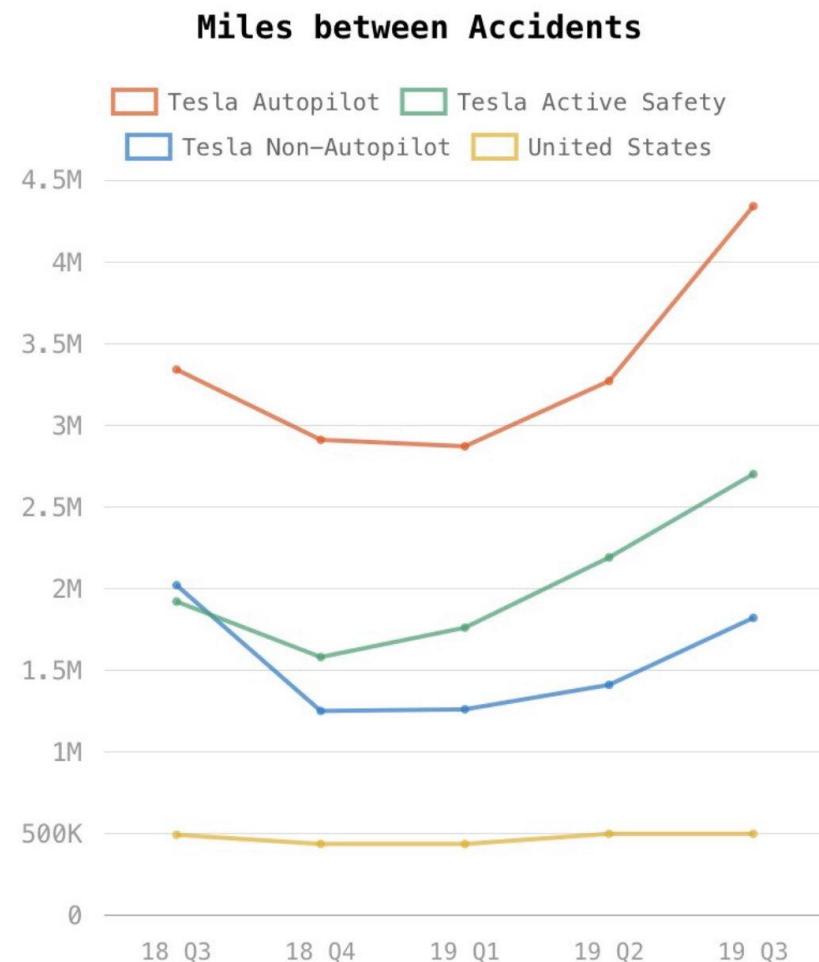
Tesla: Permanente Kollisionserkennung



TESLA AUTOPILOT PREDICTS CRASH COMPILATION | TESLACAM STORIES
<https://www.youtube.com/watch?v=HSelOg4SyOg>

Tesla Statistik

Q4 2019



In the 4th quarter, we registered one accident for every 3.07 million miles driven in which drivers had Autopilot engaged. For those driving without Autopilot but with our active safety features, we registered one accident for every 2.10 million miles driven. For those driving without Autopilot and without our active safety features, we registered one accident for every 1.64 million miles driven. By comparison, NHTSA's most recent data shows that in the United States there is an automobile crash every 479,000 miles.*

Trainieren Neuronaler Netze: Beispiel Stoppschilder

ScaledML Conference

Matroid

Feb 26-27, 2020



#scaledml2020

and actually gets quite difficult when

matroid.com

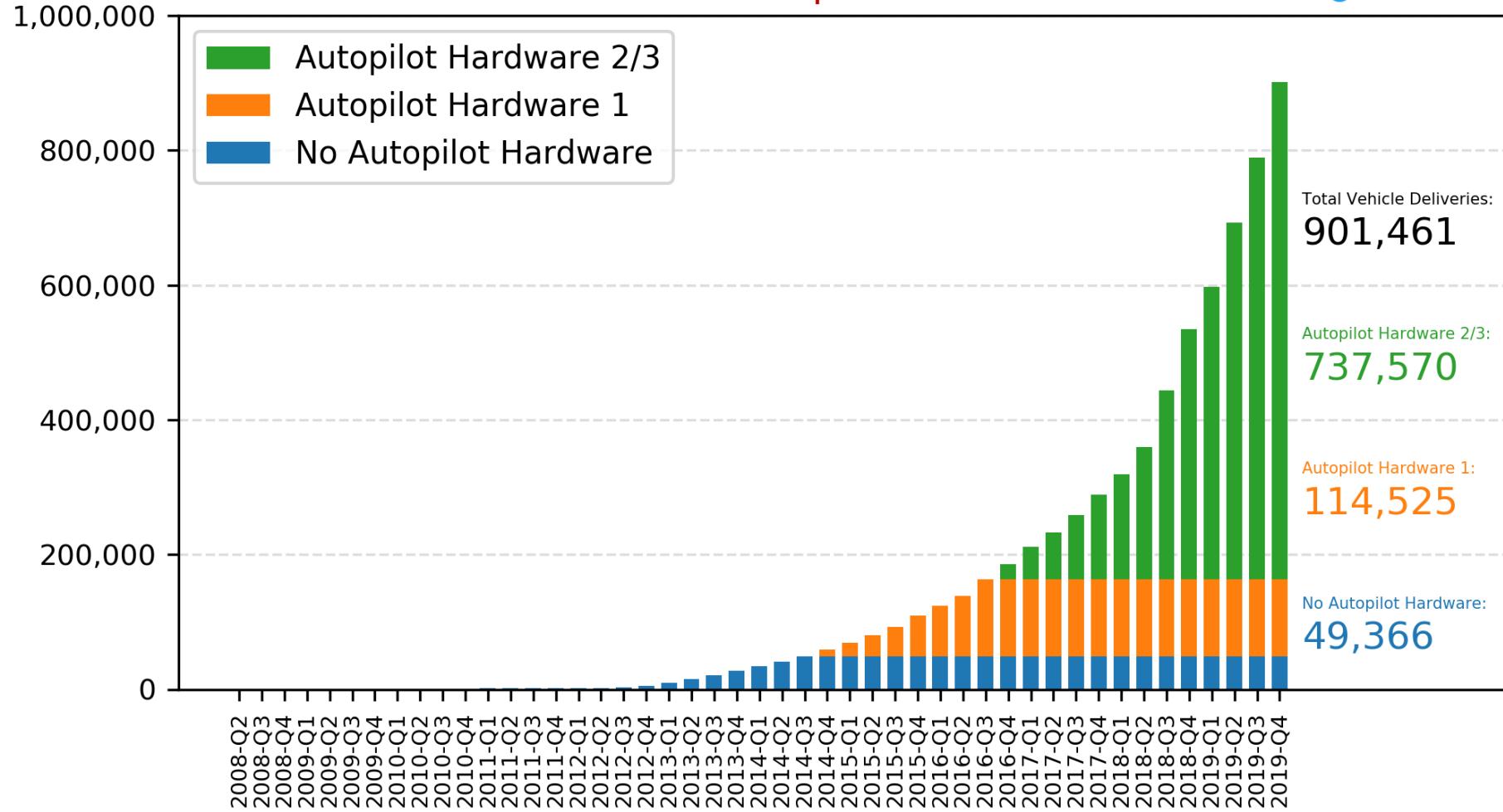
Challenging stop sign recognition examples by Andrej Karpathy Tesla

<https://www.youtube.com/watch?v=kcKchbfn1VY>

Tesla Vehicle Deliveries and Autopilot Hardware

@lexfridman

Number of Tesla Vehicles



Lex Fridman, MIT: Over 730,000 Tesla Autopilot hardware 2 & 3 vehicles are out in the world. These are aspiring young robots perceiving, acting, and learning in the world under close human supervision. 2020 will be an exciting year for AI. (01/2020)

Tesla FSD Beta San Francisco to Los Angeles with Zero Interventions, 31.12.2020



software and you will see for yourselves

8 Machine Learning I

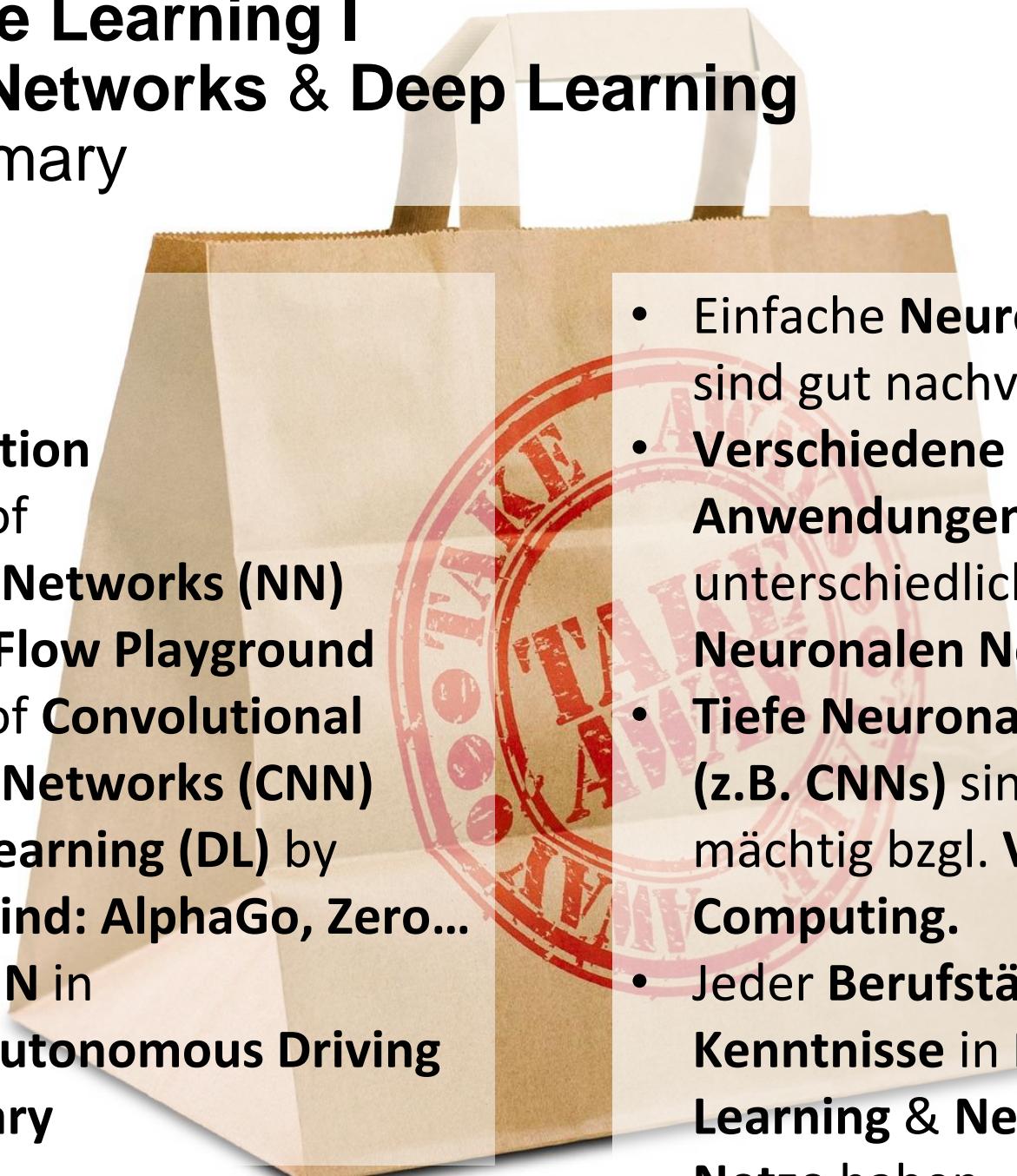
- Neural Networks & Deep Learning

(7) Summary

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- Einfache **Neuronale Netze** sind gut nachvollziehbar.
- Verschiedene Anwendungen benötigen unterschiedliche **Neuronale Netze**.
- Tiefe **Neuronale Netze** (z.B. CNNs) sind sehr mächtig bzgl. **Visual Computing**.
- Jeder **Berufstätige** sollte Kenntnisse in **Machine Learning & Neuronale Netze** haben.



Michael Amberg

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