

COMPUTING POWER IS THE NEW HORSEPOWER

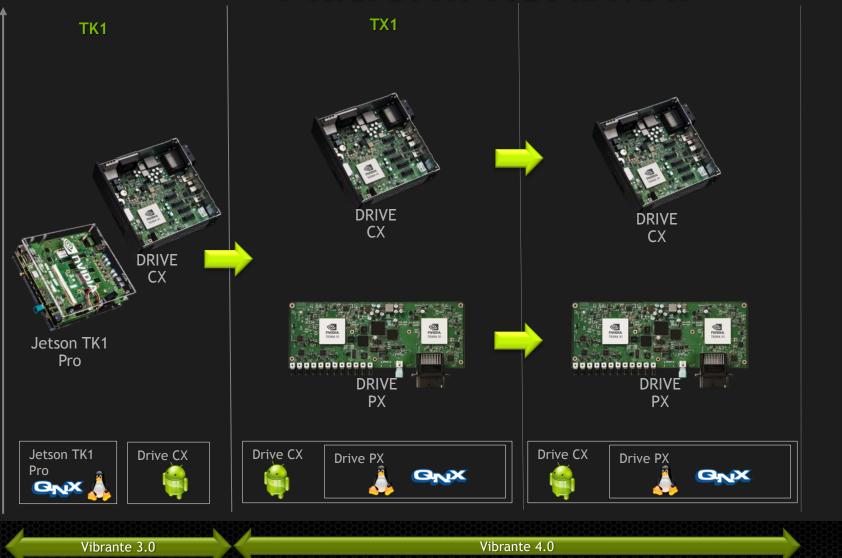
AUTOMOTIVE COMPUTING PLATFORM



Tegra Visual Computing Module



Platform ROADMAP







VIRTUAL COCKPIT









NVIDIA Automotive

cars on the road 7.5M

MANY MORE COMING...

20⁺ Brands 100⁺ Models





256-core Maxwell GPU 8-core 64-bit CPU 4Kp60 10-bit H.265/VP9

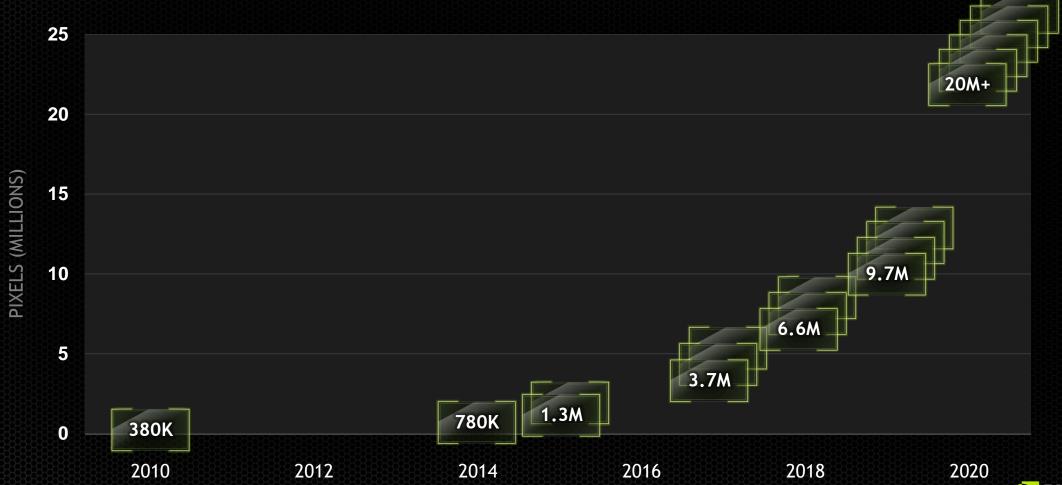
WORLD'S 1st TERAFLOPS MOBILE PROCESSOR







PIXELS IN AUTO DISPLAYS





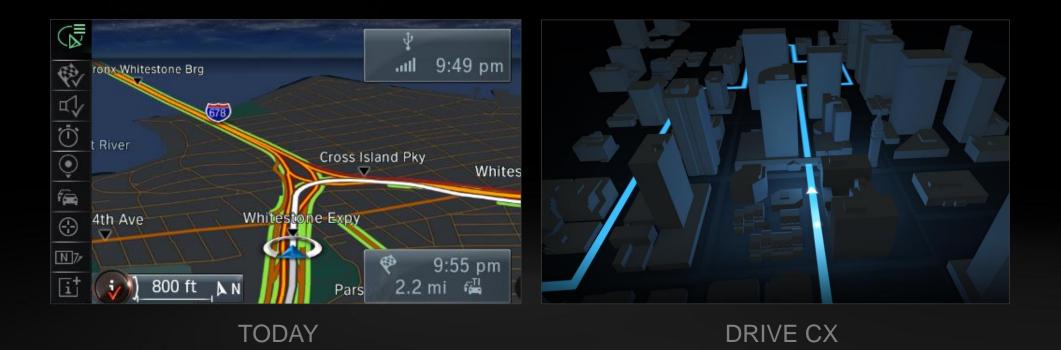
NVIDIA DRIVE[™] CX DIGITAL COCKPIT COMPUTER 16.6M pixels maximum resolution

Industry's most advanced visual computing platform

TEGRA XI

......

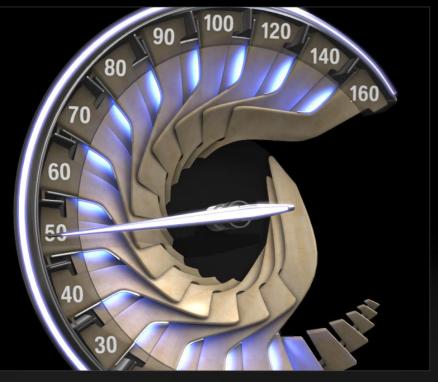
- Maxwell NVIDIA's newest GPU architecture
- NVIDIA DRIVE Studio



NVIDIA DRIVE[™] CX NAVIGATION



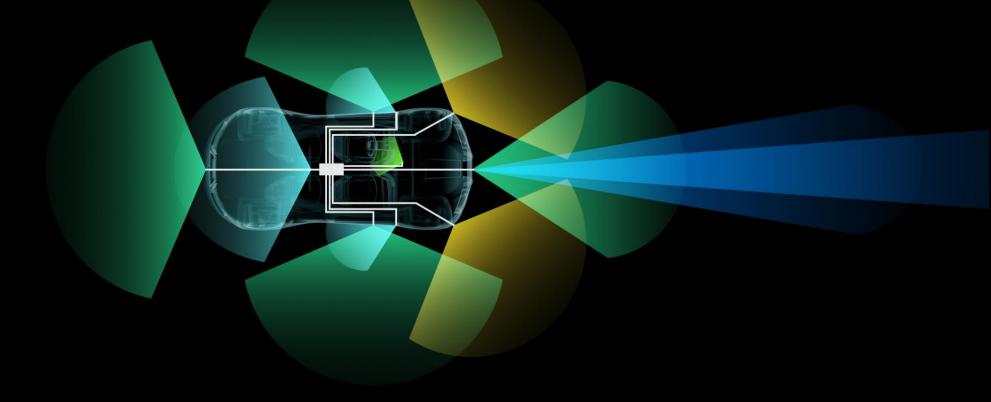
TODAY



DRIVE CX

NVIDIA DRIVE[™] CX CLUSTER

THE ROAD TO AUTO-PILOT CARS



Environment Model • Situation Awareness • Path Finding • Learning

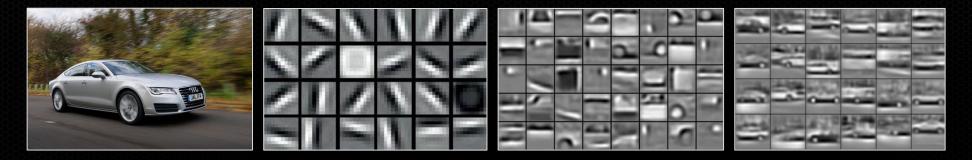
NVIDIA DRIVE[™] PX

AUTO-PILOT CAR COMPUTER Dual Tegra X1 • 12 camera inputs • 1.3 GPix/sec

- 2.3 Teraflops mobile supercomputer
- CUDA programmability
- Deep Neural Network Computer Vision
- Surround Vision



HOW A DEEP NEURAL NETWORK SEES



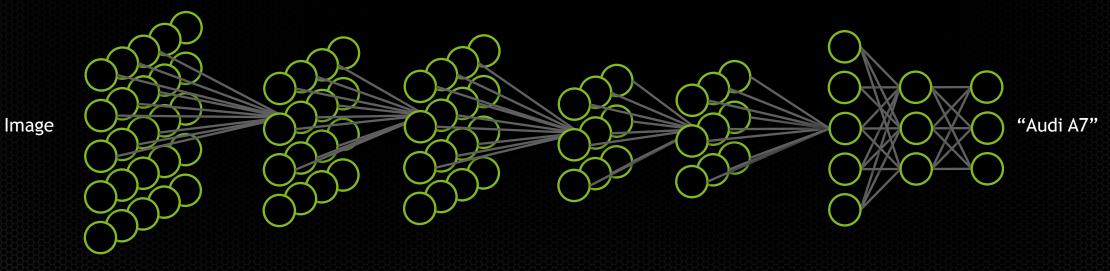
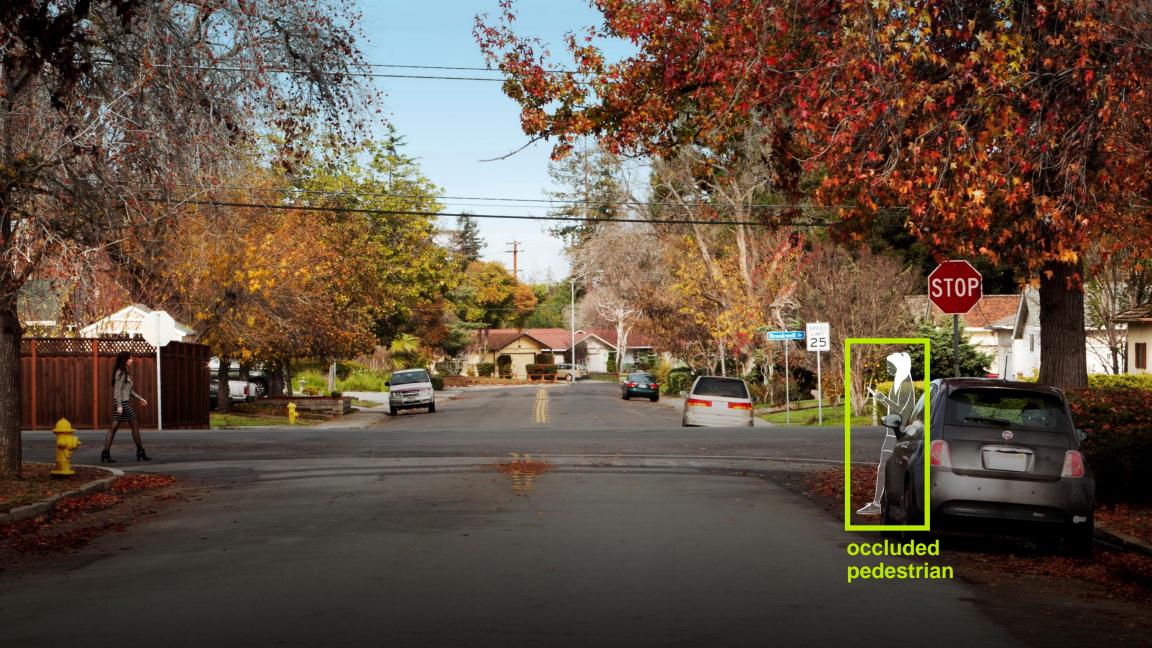
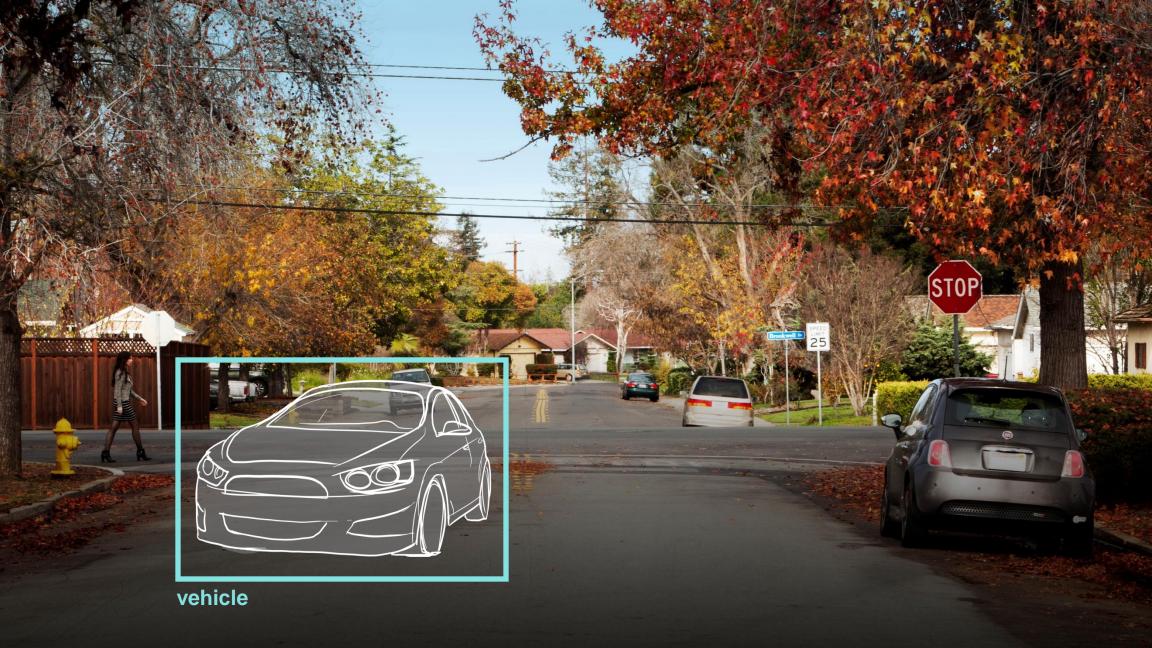
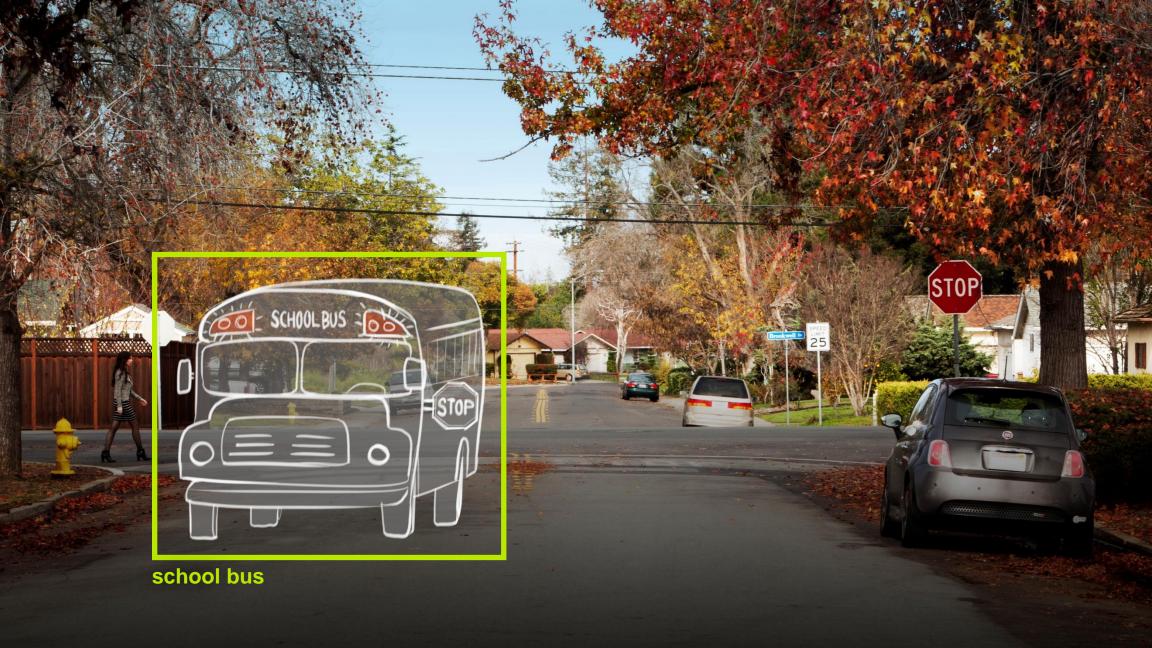


Image source: "Unsupervised Learning of Hierarchical Representations with Convolutional Deep Belief Networks" ICML 2009 Honglak Lee, Roger Grosse, Rajesh Ranganath, and Andrew Ng.





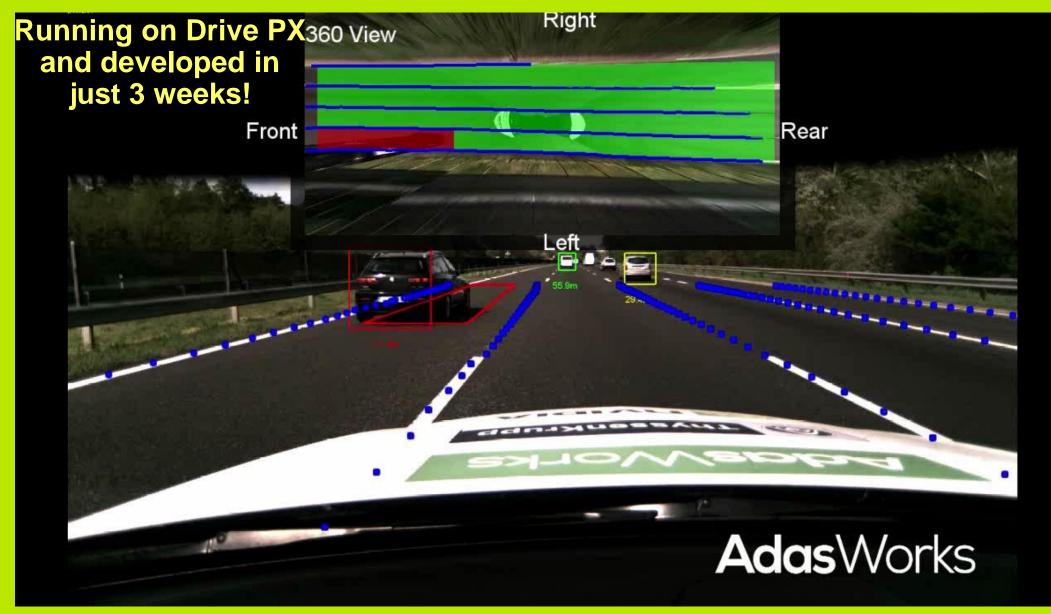












NVIDIA CONFIDENTIAL – DRIVE PX DEVELOPMENT PLATFORM

VAN

NVIDIA DRIVE[™] PX DEEP NEURAL NETWORK COMPUTER VISION



NVIDIA DRIVE[™] PX SURROUND VISION













NEW MODEL FOR INNOVATION

OEM

TIER 1

