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AI Silicon Sprouts in the Dark

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Mobileye, Nvidia AV Safety Models Collide

Intel/Mobileye and Nvidia are going to head to head again – this time colliding over safety models.

“Safety models” are, in a nutshell, policies based on mathematically verified models developed for autonomous driving.

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TALK TO US



Intel CPU Shortage Opens Door for AMD

SAN FRANCISCO — An ongoing shortage of Intel PC processors is opening the door for AMD, setting the stage for a battle between the two longtime rivals in the second half of the year, according to one market watcher.

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Software Won't Fix Boeing's 'Faulty' Airframe

The saga of Boeing's 737 MAX serves as a case study in engineering incompetence, and in engineering ethics – or the lack thereof. New details have emerged about the competitive pressures placed on Boeing 737 engineers as the aircraft manufacturer scrambled to fend off defections by major U.S. airlines to rival Airbus

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AI Silicon Sprouts In The Dark

SAN JOSE, Calif. — The potential for new architectures to accelerate deep learning is enormous. So far, only one novel chip has been fully described and benchmarked — Google's TPU — but the pipeline is full and a few of the techniques are becoming clear.

The jungle is dense with possibilities. They include analog computing, a variety of emerging memory and packaging types, and a basket of techniques specific to handling neural networks such as pruning and quantization.

"It's wide open with people working at every level," said Marian Verhelst, a professor at KU Leuven in Belgium who worked on research chips exploring binary precision formats. Analog computing looks useful, especially for 3- to 8-bit formats, she said.

Facebook Buys Interconnect IP Vendor Sonics

PARIS — Facebook has acquired Sonics Inc., a privately-held Silicon Valley IP provider that specializes in on-chip network (NoC) and power-management technologies. The deal is another sign that big systems companies like Apple and platform vendors such as Google and Facebook are designing in earnest their own SoCs for captive use.

After our initial story went public on EE Times' website early Wednesday morning, a Facebook spokesperson called us and stated, "I can confirm that we have acquired Sonics." She said, "We're rapidly developing new VR and AR products and deepening our technology expertise in silicon is an important step for our 10-year roadmap. We're excited to welcome the remarkable Sonics team and technology to AR/VR at Facebook."

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Intel/Mobileye and Nvidia are going to head to head again – this time colliding over safety models.

"Safety models" are, in a nutshell, policies based on mathematically verified models developed for autonomous driving.

Intel/Mobileye Monday posted a fiery blog against a mathematical safety model that Nvidia announced for autonomous driving. Nvidia calls the model its own and named it Safety Force Field (SFF).

Intel/Mobileye described SFF as "a close replica" of the Responsibility-Sensitive Safety (RSS) Mobileye pioneered two years ago.

Intel CPU Shortage Opens Door For AMD

SAN FRANCISCO — An ongoing shortage of Intel PC processors is opening the door for AMD, setting the stage for a battle between the two longtime rivals in the second half of the year, according to one market watcher.

A shortage of Intel processors that began last year — particularly at the higher end of the market — has constrained PC OEMs and prompted several of them to introduce systems based on AMD processors. Intel CEO Bob Swan said in January that the processor shortage could last into the second half of 2019.

Meanwhile, as Intel continues to struggle with yields at 10 nm, AMD is already forging ahead with 7 nm, announcing at CES earlier this year that it would have Ryzen 7-nm desktop CPUs available around the middle of 2019.

Software Won't Fix Boeing's 'Faulty' Airframe

The saga of Boeing's 737 MAX serves as a case study in engineering incompetence, and in engineering ethics – or the lack thereof.

New details have emerged about the competitive pressures placed on Boeing 737 engineers as the aircraft manufacturer scrambled to fend off defections by major U.S. airlines to rival Airbus. The European consortium was challenging Boeing's flagship product with its upgraded A320neo. According to reports, U.S. carriers like American Airlines were preparing to switch to the longer-range Airbus mode

Boeing responded with what it claimed was an upgraded version of its workhorse 737 equipped with a larger CFM LEAP engine providing longer range and greater fuel efficiency. The larger engines required Boeing engineers to place them far ahead of the wing leading edge to achieve ground clearance.