multicoreware

CRAFTING THE FUTURE

with next generation solutions

COMPANY OVERVIEW

Since 2009, MulticoreWare Inc. has been crafting solutions for complex technological problems with next generation software. We help companies enhance digital experiences and enable greater efficiency across products and platforms.

FOUNDED IN 2009

Headquartered in San Jose, California, started by a group of researchers & entrepreneurs

OUR EXPERTISE

Over decades of cumulative technology experience

STRONG LEADERSHIP

Seasoned industry professionals in perfect alignment with academia

COMPANY OVERVIEW

GLOBAL PRESENCE

Delivery centers and sales presence in the USA, EU, India & China

OUR PEOPLE

350+ strong engineering team across domains & technologies

ENVISION. CONCEPTUALIZE. CREATE THE FUTURE...

The future is for us to envision and create. MulticoreWare is proud to be a part of cutting edge technologies and break-throughs that help create a better tomorrow.

Whether it is OTT content or a movie that you watch with your family, or the phone you use, or the car you drive, we play a small role in making this experience safe and perfect for you.

EXPANDING THE HORIZONS OF AI & DATA ANALYTICS, MACHINE LEARNING & COMPUTE POWER

Artificial Intelligence & harnessing the power of data to make decisions is the future. Our products and services enable innovation throughout the Electronics & Information Technology industry.

Our algorithms and video codec libraries are lightweight, fully customizable, and support various industries to achieve automation and efficiency, resulting in a reduced footprint.

INDUSTRY VERTICALS

Our solutions are used in Media & Broadcasting, Automotive (ADAS/AD), Security & Monitoring, Medical Imaging, Healthcare, IoT, Retail, Logistics, Industrial Automation, Robotics, Smart City and many other verticals.

Our expertise in Compilers & Platforms, Computer Vision, Deep Learning, Audio & Video Technology (Codecs), Sensor Fusion & Image / Data Processing is being used everyday to improve the quality of life, and create an impact on the way we access and harness technology.

OUR PRODUCTS

x265 - x265 is the gold standard in HEVC encoding and is the most popular Open Source HEVC video encoder used worldwide and chosen by the world's leading media companies. It is capable of compressing video files up to two times as efficiently as the "H.264 (AVC)" video compression standard.
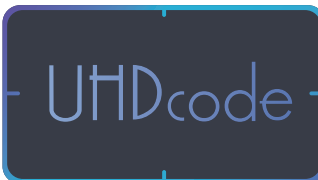
x266 - x266 is the next-generation open-source VVC encoder to the gold standard x265 HEVC encoder. It is twice as efficient as HEVC based video codecs. MulticoreWare leads the x266 consortium (VVC), the Next-Gen Video Technology.

Ultraziq - Our state-of-the-art commercial video encoding framework for AVC, HEVC, and AV1. This delivers more encoding efficiency and performance density for OTT and Live Streaming use cases.

LipSync - A format and content agnostic "watch and listen" AI tool that decides and flags media content with lip-sync errors.

UHDcode - UHDcode is a high performance HEVC decoder, supporting the full HEVC / H.265 specifications, including all levels and profiles.

HuBe.ai - Human Behavior Intelligence Platform powered by AI, delivered to customers as APIs in a Software as a Service (SaaS) Model. The platform uses face recognition, body movements and tracks human activities to detect anomalies. (www.hube.ai)

VaLVe - A programmer productivity tool for SIMD programming, currently supporting users of ARM V9 and RISC-V architectures. It provides portability between different architectures, and minimizes code edits required to convert scalar code to vector code.

CORE TECHNOLOGIES, EXPERTISE & SERVICES

COMPILERS & PLATFORM ENABLEMENT

High-performance and domain-specific compilers (Halide, Glow, MLIR, OpenCL, SYCL), numerical libraries (BLAS, CNN), benchmarking and performance tuning

AUDIO - VIDEO SOLUTIONS

Licensable products - x265 (HEVC), x266 (VVC), Ultraziq and UHDcode with support for Adaptive Bitrate, Live 2 pass, Content Adaptive encoding for higher Bandwidth Reduction

MACHINE LEARNING SOLUTIONS

Onboarding CV or DNN models, Network Profiling, Kernel development for AI Accelerators, Compilers (LLVM, Glow, MLIR), Intelligent Algorithm optimzations for DSPs (specialized experience of platforms such as CEVA, TI, Cadence, Synopsys, Renesas, NXP, Qualcomm)
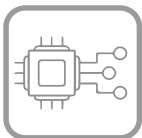
AI APPLICATIONS & TOOLS

Customized AI Solutions for industry verticals:
HuBe.ai - AI Powered Human Behavior Intelligence Platform (SaaS)
LipSync - AI based Audio-Video QC Tool

SENSOR FUSION ENGINEERING

AI- Driven Sensor Data Processing & Algorithm Edge Optimization (RADAR, LIDAR, TOF, Thermal Cameras, Event Vision Sensors, etc.) 3D sensing employing digital imaging for active robot perception

EMBEDDED SW DEVELOPMENT

Device Drivers, Sensor Firmware development on QNX, RTOS, etc.

AUTONOMOUS MOBILITY SOFTWARE

Full Stack Autonomy Software Development (Perception, Localization, Navigation Planning) Cabin Sensing, Driver Assist Modules, Perception & Prediction, Surround View
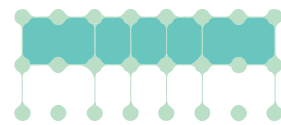
AUTOMOTIVE FUNCTIONAL SAFETY

Automotive Code Compliance & Functional Safety Driven Development (ISO 26262), ASIL - B, Automotive SPICE

INVESTING IN RESEARCH & DEVELOPMENT

There is no action without research, and in R&D, any outcome is a good outcome. We collaborate with our customers around the world and with leading educational institutions to provide solutions to complex technological challenges. If you have an exciting idea, we are your innovation partners! Reach out and start the dialogue!

We work on the technologies of the future, constantly striving for solutions to the most challenging technological conundrums.

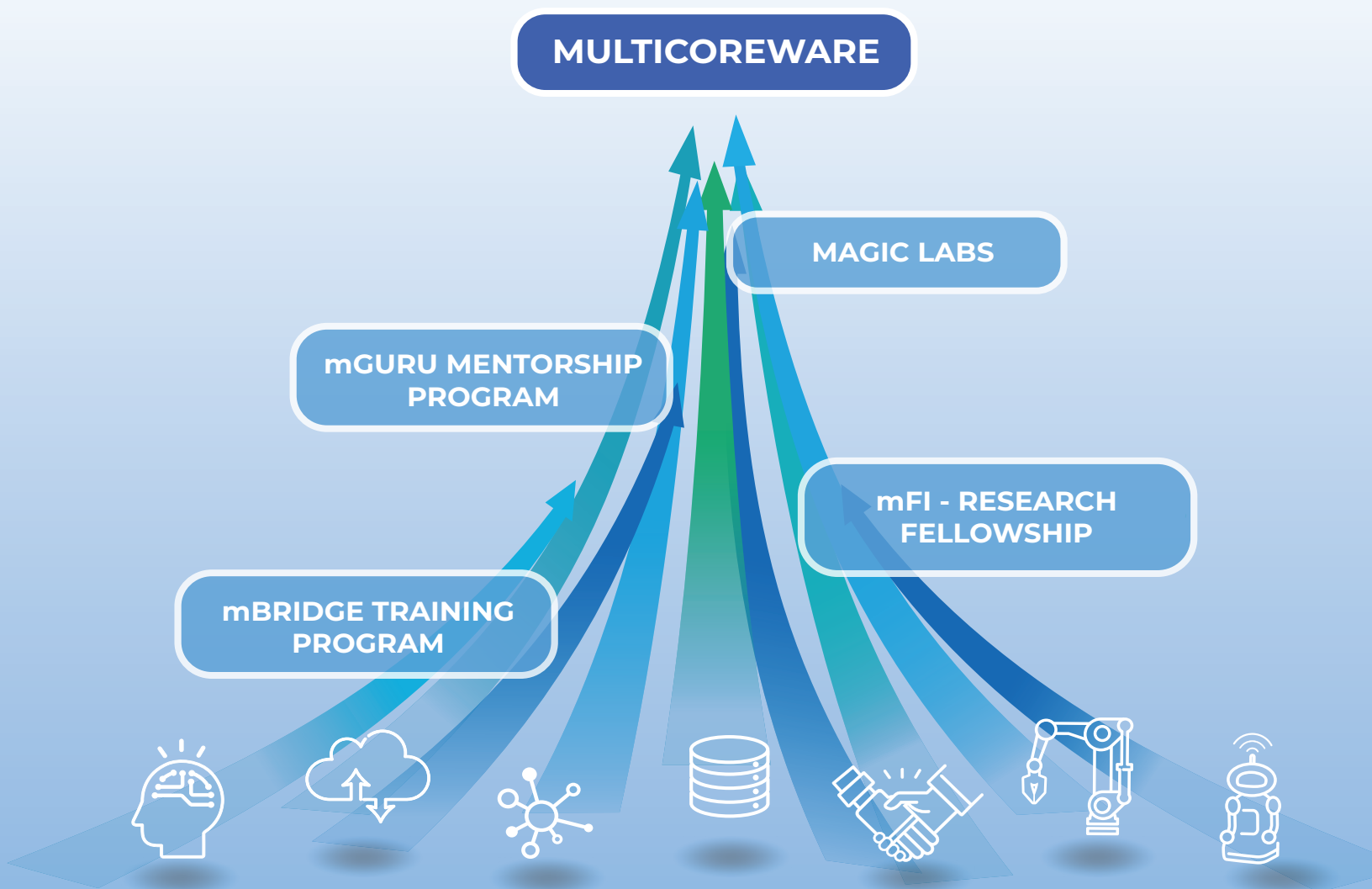MulticoreWare's R&D facilities have been established in reputed engineering institutions.

The MulticoreWare Academia Global Innovation Centers (MAGIC) work with institutions to set up research clusters consisting of students, faculty & engineers from MulticoreWare and represent the true synergy between industry & academia.

FOSTERING INDUSTRY - ACADEMIA CONNECTION

Collaboration amplifies agile thinking & solutioning. The office of the CTO focuses on R&D and is represented by academicians and technologists.

Our close relationships with academic institutions have enabled us to create a think-tank of the best minds. Faculty from Engineering colleges are encouraged to take a work sabbatical **(mFI program)** and join us as research assistants to work on real world projects with customers and bring their unique knowledge to the table. This synergy of diverse experiences encourages growth all around.

MULTICOREWARE

MAGIC LABS

mGURU MENTORSHIP PROGRAM

mFI - RESEARCH FELLOWSHIP

mBRIDGE TRAINING PROGRAM

TRAINING & LEARNING

We are as strong as the people who stand with us. Our integrated Learning & Training Program (mBridge) fosters a culture of continuous learning & training. Engineers are encouraged to spend time off projects and get trained on the latest technologies.

Our close connections with faculty from Engineering colleges also facilitate training sessions to be conducted and enable continuous learning. The mGuru or Mentoring Program aims to create the second generation of leaders from within. Promoted by the chief executives of the company, the program links associates to different executives to learn from their wealth of experience.

SOCIAL RESPONSIBILITY @ MCW

We believe that "giving back" is a continuous activity that pervades every aspect of our lives and interactions, and cannot be compartmentalized into one item or task.

Our social programmes and initiatives are driven by our employees and supported by the organization and is based on the bedrock of "Doing Good, Feeling Good, Getting Good". (www.**multicoreware**.org)

multicoreware

https://multicorewareinc.com/