

Electrical Engineering & Software Development Department Capabilities

- Electronics and software design for products in a wide variety of industries
 - Medical simulation devices
 - Autonomous vehicles
- Analog and digital circuit design and simulation
- Autonomous design & integration
- Printed circuit board (PCB) design and layout
- Designing systems for harsh environments
- Experience with certification processes, including UL and EMC
- Resolving electromagnetic interference problems
- System integration: interfacing control, sensing, actuation, and reporting into a cohesive system
- Robotics
- Vehicle system integration: processors, sensors, power, wiring
- Embedded system design controllers
- Firmware development
- Sensor and actuator selection and interfacing
- CAN BUS J1939
- Software development in several languages and platforms
- Web development
- Database development, interfacing, and administration
- Cloud computing
- App development for Android and iOS
- Image Processing & Computer Vision

- User interface design, usability studies
- Data analysis and data mining
- Instructional design
- Remote firmware updating
- System simulation
- High-performance computing
 - Parallel software development
 - Computer cluster design and administration
 - GPU application development

Tools

- Windows, Linux, RTOS
- C, C++, Java, Perl, Python, PHP, Fortran, Assembly
- Beaglebone, Raspberry Pi, Arduino, and other single-board computers
- TI, Atmel, PIC, x86 processor integration
- HTML, CSS, JavaScript
- Amazon AWS, MS Azure
- IDEs: MS Visual Studio, Code Composer Studio, Atmel Studio, Android Studio
- EAGLE
- MATLAB, Simulink, Simscape
- MPI, CUDA, OpenMP, PVM

You're not in it alone.

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