



WINEGARD

Control Systems Engineer

Winegard is seeking a Control Systems Engineer to join our team at our corporate headquarters in Burlington, Iowa.

Duties:

The Control Systems Engineer is responsible for: (1) Designing sensor fusion algorithms, (2) Developing motion control and tracking algorithms on dynamical systems, (3) Programming sensor APIs and peripheral drivers in embedded systems, (4) Benchmarking, characterizing, and identifying candidate sensors to application needs, (5) Researching and developing AI/ML algorithms, (6) Architecting the development of motion simulating platforms, (7) Devising and performing Hardware-in-Loop and Software-in-Loop testing.

Requirements

Education and Experience:

- Master's degree in Mechanical Engineering
- Minimum of 24 months' employment experience as Mechanical Engineer or related engineer role

Other Special Skills Required:

- Strong background in classical and modern controls theory and signal processing, including: IIR, FIR, FFT, PID, Kalman Filter
- Proficient in kinematics analysis and modeling of dynamical systems
- Experience in inertial navigation systems. Must be able to design sensor fusion algorithms with IMUs and AHRS/MARG sensors
- Experience in developing tracking algorithms
- High degree of proficiency in Octave for data analysis, simulations, and automation
- Highly experienced with integrating MEMs sensors
- Experience in motor control i.e. stepper motors and linear actuators
- Strong software and hardware troubleshooting skills
- High degree of proficiency with programming in embedded systems, including C, ARM based MCUs (NXP K64, STM32F), Keil ARM IDE, Eclipse based IDE (MCUXpresso, STM32CubeIDE), CMSIS DSP, JTAG/Serial Wire Debuggers, Visual Studio, I2C, SPI, GPIO, UARTS, Flex/PIT Timers, DMA, ISR based drivers for sensors

Benefits: Health, Dental, Vision, PTO, 401k

To apply, mail resume to: Kerry Hale 3000 Kirkwood St. Burlington, IA. 52601

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