

# Capstone Turbine Corporation

## Software DSP Engineer

### Job Requirements:

Capstone Turbine Corporation is seeking a Software DSP Engineer with embedded controls experience to join our software development team. This position involves developing features for embedded software applications used in Capstone's MicroTurbine(tm) inverter, generator, battery, and fuel controllers. These DSP-based controllers perform current & voltage regulation, AC/DC power conversion, and engine fuel delivery.

The Software DSP Engineer will be expected to adhere to a software design & development process. The candidate will define requirements, design, code, integrate, test, and perform software configuration control on the source code. Documentation and participation in design reviews and code reviews to assure the development of quality software is required.

Assembly language code will be written for a Texas Instruments DSP 320c240 processor and "C" language code will be written for a Texas Instruments DSP 2812 processor. Programming experience in assembly code on Texas Instruments C2x or C5x processors is relevant. Experience with real-time embedded operating systems (RTOS), ability to write low level software drivers, developing and tuning Proportional Integral Derivative (PID) control governors, and standard communication protocols (RS232, RS485, CAN, MODBUS, TCP/IP) is required. Familiarity with gas turbine engine controls, 3-phase motor control, power electronics, and inverter control theory is preferred.

Some experience with developing assembly code for PIC processors is recommended. Some knowledge of developing "C" language code on a Motorola 68332 and a Motorola PowerPC 860 for main system controls is preferred.

The candidate must have experience working with micro & power electronics and be capable of reading electronic schematics. Excellent troubleshooting skills and a willingness to work in a test cell environment is a must. The candidate must possess a positive attitude, good leadership and communication skills, a willingness to take ownership of their work, the ability to meet scheduled milestones, and an eagerness to grow and learn.

A Bachelor of Science or MS degree alumnus in Electrical Engineering, Software Engineering, or Computer Science with 2-4 years of related work experience. Recent MS or PhD graduates with 0-2 years experience will be considered.

Resumes can be forwarded to:

Jim Patterson

Human Resources

Capstone Turbine Corporation

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