

Daniel B. Johnson

UNITED STATES CITIZEN

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OBJECTIVE

- Seeking an engineering career with an emphasis in system design and application.

SUMMARY

- Accomplished with exceptional knowledge of electronics, analog and digital communications engineering, digital signal processing, embedded system design and control systems.
- Strong embedded programming background combined with fluency in digital signal processing techniques, including "Fast Fourier Transform" and "Chirp Z-transform".
- Skilled at learning new concepts quickly, working well under pressure, and communicating ideas clearly and effectively.
- Extensive computer training, including knowledge of multiple computation environments and software packages.
- Experienced in and enthusiastic about engineering.

EDUCATION

Masters of Science Degree in Electrical Engineering

Dec. 2011

California State University, Fullerton, CA

Concentration in Communications Engineering, and Control Systems Engineering

GPA: 3.48/4

Bachelors of Science Degree in Electrical Engineering

Aug. 2009

California State University, Fullerton, CA

Concentration in Control Systems Engineering and Digital Signal Processing

Dean's List 2008, 2009

CAREER ACCOMPLISHMENTS

Application Engineer, ReadyTrace, Inc.

2009-2011

- Design of an ISM band RF amplifier with matching networks using: Matlab, Simetrix and Linc2 software packages.
- Design and implementation of an ISM band RF remote control interface utilizing the Microchip MRF49XA Transceiver.
- Implemented and programmed a DSP-centric power control system to run a 3-terminal switch mode power supply based on Microchip DSPIC33 and Xilinx XC9500 series chips.
- Designed, implemented, and programmed boards based on the Microchip PIC18F series chipset to interface with an in house proprietary ASIC. Controlled these devices by writing intelligent analog gain control algorithms
- Programmed a DSP monitoring and tuning interface for an AM radio signal injector, implemented in 30 clear channel radio stations based on a Texas Instruments TMS320VC33 digital signal processor including a bootloader.

Awarded

2009

Presented a research paper on a neuromuscular electrical stimulator design; for biomedical engineering applications, at the 2009 Savant International System on a Chip Conference in Newport Beach, California. This research paper won THIRD PLACE working alone, competing against 14 other entries consisting of some group research projects and some doctorate theses. The design was capable of NMES and TENS stimulation.

Project

2009

Designed and built Vehicle Dynamics and Information System [VDIS]. It is meant to aid the driver who needs access to information that could be vital to specific applications, such as racing, rock climbing, turning, over steer, under steer, skid pad dynamics, position, and time. It contained GPS receiver with WAAS, 3-axis accelerometer, PIC18F, LCD, and keypad, which prompted a user through intuitive menus to enter settings, and give audible, visual, and character displayed data to the driver.

Online sales and IT Specialist, *Coast Fulfillment, Corp.*

2003-2009

- Held key responsibility in this medium sized distribution company by helping facilitate online ecommerce systems.
- Served as chief technical officer; responsible for servers, workstations, phone systems and internet connectivity.
- Managed a group of six people to continually update and manage an online product catalog.

MEMBERSHIPS & ASSOCIATIONS

- Institute of Electrical and Electronics Engineers (**IEEE.org**). Project Manager, Webmaster
- International Society of Automation (**ISA.org**)
- Illuminating Engineering Society (**IES.org**)

GRADUATE COURSEWORK

Controls Engineering

- Digital Control Systems (sampling, digital/analog control loops)
- Global Positioning Systems
- Robotics (Arms)

Communications Engineering

- Digital Signal Processing (DFT, FFT, CZT, quantization)
- Information and Coding Theory (error correction coding techniques)
- Detection Theory (receivers and decision making)
- Phase Lock Loops and Frequency Feedback

Systems Engineering

- Optimization Technology

General Graduate Electrical Engineering

- Analysis of Random Signal (Random Stochastic Process, Kalman, Filtering, White Noise)
- Computational Methods in Numerical Analysis (Runge-Kutta methods, Taylor series)