Embedded Software Developer/ Python Developer Embedded Software Developer/Python Developer Embedded Software Developer/ Python Developer - Cypress Magnetics Oakland, CA

Work Experience Embedded Software Developer/ Python Developer Cypress Magnetics September 2016 to Present Set up linux and install Python packages ? Write algorithm and Python scripts to optimize transformer designs ? Use a REST API in Python to request data for forex market, and to place trades on the market ? Create NumPy arrays to process and monitor forex market data to begin automating buying and selling ? Use Python's multiprocessing module to monitor forex market price activity in the background ? Set up I2C protocol in C between microcontroller and peripheral devices ADC, RTC, and EEPROM to automate measurements of voltages in electronic circuits, take an accurate timestamp, and save the data ? Interface microcontroller with LCD in C to display the values of measurements of electronic circuits ? Use UART and C language to send data measured from electronic circuits from microcontroller to PC Embedded Software Developer Infinite Options September 2018 to October 2018 Use Atmel Studio 7 environment to write C code for Atmega8515 microcontroller ? Interface microcontroller with 7-segment displays and piezoelectric sensor ? Program Atmega8515 microcontroller fuses to use external clock source (16 MHz crystal oscillator) ? Write C code to calculate rate of piezoelectric sensor pulses in beats per minute ? Write C code to display updated values of sensor pulse rates on 7-segment display Professor Lubin's Research Group Cosmology June 2014 to September 2015 Set up linux and install Python packages on NUC computer ? Digital signal processing of cosmic microwave background radiation data from antenna and Airspy device ? Create data pipeline in Python to perform fast fourier transformations on incoming data and to save the data once the operations are completed ? Use Git and Github to share code with the team   Skills I Python 2, Python 3, C, C++, Embedded C, Embedded Software, JavaScript, Matlab, Linux, Git, Github, Object Oriented Programming, pip, NumPy, SciPy, Matplotlib, 2to3, multiprocessing/multithreading, requests, pylint, unit testing, decorators, pdb, REST API, databases, SQL, MySQL, microcontrollers, 8051, ATmega8515, Keil IDE, Atmel Studio 7, LED interfacing, 7-segment display interfacing, hex keypad interfacing, LCD interfacing, I2C protocol, SPI, CAN, UART, Robotics, DC motors, stepper motors, sensors, ARM,

PIC, Embedded Linux, Raspberry Pi, oscilloscopes, analog circuitry, digital signal processing, digital image processing Education Bachelors of Science in Physics in Physics University of California - Santa Barbara, CA 2015

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