

CONTACT:

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# Bhagyashree Khairnar



An MSEE graduate from the UTA (US) and former Associate Software Engineer from SEL with 3+ years of firmware development experience. I am a self-taught Front End Developer passionate about working on exciting Front End projects by delivering excellent results.

## WORK EXPERIENCE

### Associate Software Engineer

Schweitzer Engineering Laboratories, Pullman, Washington, USA Aug 2015 – Sept. 2016  
Participated in all stages of the Agile software development life-cycle during the firmware development of the product SEL3070 based on ARM.

### Firmware Engineer Intern

C&J Energy Services, Houston, Texas, USA (Nextier) Jun 2014 – Aug 2014  
Completed 2 important R&D firmware projects for the PIC and FPGA based Digital Processing Controller board (DPC).

### Owner & Tutor

Excellence Academy, Nashik Oct. 2016 – Nov. 2019  
Owned a coaching institute with a digital classroom for 7th, 8th, 9th & 10th grade school students from ICSE, CBSE, SSC boards.

### Electrification Engineer – Electric Vehicle

Precision Camshafts Limited (Emoss), Pune Nov 2020 – Apr 2021  
Co-ordinated all electrical and electronics integration activities for 22 seater EV with the ARAI team.

### Systems Engineer (ERP)

Genext Precision Auto Tech Pvt. Ltd., Nashik May 2021 – Apr 2023  
Implemented PmTrack ERP across 6 departments and for 25 users.

## EDUCATION

M.S. EE - University of Texas at Arlington, USA (GPA: 3.82/4)	Fall 2013 – Spring 2015
B.E. E&TC - Cummins College of Engineering, Pune (63.33%, First class)	Aug 2008 – May 2012
H.S.C - HPT Arts & RYK Science College, Nashik (84%)	Jun 2006 – May 2008
S.S.C - St. Philomena's Convent High School, Nashik (88.6%)	Jun 1997 – May 2006

## TECHNICAL SKILLS

- C (Proficient); C++ (proficient, OOB); Python (proficient); JavaScript (beginner); HTML5 (beginner); CSS3 (beginner); Angular (prior exp.); nodejs (prior exp.); npm (prior exp.); Typescript (prior exp.).
- Git; Github; Visual Studio Code; Vim; CLI.
- Visual Studio; MATLAB; LabVIEW; Visual C++; µVision Keil, MPLAB; Code Composer v6; CodeBlocks (GCC); In Circuit Debuggers; ICD3; Digital Oscilloscope; Spectrum Analyzer; DMM; Power Supply.

## COURSEWORK

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Computer Architecture; Microcontroller Embedded Systems; Advanced Microcontroller Embedded Systems; Real Time Data Acquisition Systems; Advanced Research in Electrical Engineering; Wireless Communication.; Data Structures ; RTOS and Embedded Systems; Data Communication; Digital Communication.

## PROJECTS

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### Personal Portfolio Website – [Bhagyashree.net](http://Bhagyashree.net)

Website to showcase my personal front end development work. HTML5, CSS3, JavaScript, VSCode, Git, Github.

### Real Time Data Acquisition System for Windows using D/A module DT9816 (Spring 2014).

Server Client system developed using windows socket and multithreading. C++, API: Win32, DT9816, TCP/IP.

### Nios II based Real Time Client Server Model (Spring 2014).

Developed a simple system using Altera Cyclone II FPGA based board. C++, API: Win32, Windows Socket, Parallel Programming, TCP/IP.

### DsPIC33F based Cooperative and Pre-emptive RTOS (Spring 2014).

Implemented a cooperative and pre-emptive RTOS on a self-developed board. Embedded C, DsPIC33F, RS232. (Implemented components: Priority based Round Robin Scheduling, Dispatcher, and Synchronization mechanism: Counting and binary Semaphores, Passive waiting, etc.)

### DsPIC33 based Infrared Transceiver (Fall 2013).

Motorola's Infrared Modified NEC Protocol based transceiver. Embedded C, DsPIC33F, UART, RS232, Wireless Communication.

### DsPIC33 based SPI Bus Extension (Spring 2014).

Checked Data Integrity over various lengths of SPI buses. Embedded C, DsPIC33F, 16 bit GPIO expander – MCP23S18, SPI.

### DsPIC33 based E1.31 standard (Ether) to E1.11 standard (RS485) (Spring 2014).

Converted Ether packets received at 10 MHz to RS485 data transmitted at 250 kHz. Embedded C, DsPIC33F, ENC28J60, RS232, UART.

### DsPIC33 based Transmitter and Receiver synchronization of the Pulsed Neutron Tool (Summer 2014).

Developed a highly accurate and synchronous test signal for synchronizing the transmitter DPC and Receiver DPC of the Pulsed Neutron tool at C&J. Embedded C, VHDL, DsPIC33F, and AGL250V2VQ100 FPGA.

## EXTRA CURRICULAR

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- Hobbies: Exercising, painting, reading books, traveling, listening to music and watching movies.
- Volunteered at an NGO named IMAD in Nashik for 3 months, teaching slum kids