

ONKAR RAUT

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OBJECTIVE Procure an Embedded Systems Application Developer/Internship position where my technical skills and professional experiences will add value to operation.

RECENT EMPLOYMENT **Consultant Engineer for Future Designs Inc., Huntsville, Alabama. (From February, 2011 to April, 2011)**

Responsibilities:

Development of device drivers for the uEZ rapid application development platform

Porting over functional tests from other architectures to the RX62N processor

EDUCATION **University of Mumbai, India.**

Bachelor of Engineering in Instrumentation, May 2008

Aggregate 65/100

University of North Carolina at Charlotte, NC, USA.

Master of Science, graduation expected in August 2011

G.P.A. 3.6/4.0

SKILLS

Software Skills C, C++, Embedded C/C++, MATLAB.

Embedded Programming Device Drivers and Application Programming.

Processors and Microcontrollers R8C/2A/2B Group, M16C Family, RX62N Family, 8085, 8086, 8051, Atmel AVR family, TI MSP430 family, ARM architectures

GUI Development Tools OpenGL, OpenCV and FLTK

Working Platforms Windows, Linux

Hard Skills PCB design using ExpressPCB, Soldering.

EXPERIENCE Future Designs Inc., Huntsville, AL, USA February, 2011 to April, 2011.
Developed device drivers and porting of functional tests while working remotely.

Graduate Teaching Assistant, UNCC, NC, USA July 2010 to December 2010.
Conduct laboratory sessions for undergraduate students and occasionally deliver lectures on Embedded Systems Design.

Graduate Research Assistant, UNCC, NC, USA October 2009 to July 2010.
Transfer of data using Socket Programming, Wireless LAN dongle WL-167G and Single Board Computers (TS7200).

Development of a Low cost, Low Power Wireless Quiz System using the eZ430-RF2500 Tool kit and SimpliciTI protocol.

Analysis of digital FIR filters on AVR microcontrollers.

Interface of a GPS module (FV-M8) to the M16C microcontroller.

Developing low level device drivers for the RX62N SCI, I2C and SPI for educational purpose.

Assisted in the development of a 3 dimensional LIDAR scanner and camera system for the UNC Charlotte Machine Vision Laboratory.

Ad hoc Lecturer, Rajiv Gandhi Institute of Technology, Mumbai, India August 2008 to May 2009

Conduct lectures and practical training sessions for undergraduate students for courses of Industrial Electronics Design, Digital Logic Design and Application and Advanced Microprocessors.

THESIS SENSOR DATA FUSION FOR CAMERA AND ACCELEROMETER BASED SYSTEMS
Present fusion as a part of the process of dynamic world modeling and a postulate set of principles for the fusion of independent observations from camera and accelerometers with applications towards robotics and machine learning

PUBLICATIONS A Wireless Quiz System using Low Power Microcontrollers, IEEE Southeast Conference 2010. IEEE DOI: 10.1109/SECON.2010.5453928
Survey of Recognition of Arabic Scripts for Indoor Unmanned Aerial Vehicles using Classical Methods for Pattern Recognition, IEEE Southeast Conference 2011. IEEE DOI: TBD

GRADUATE COURSES Advanced Embedded Systems, Embedded Systems, Computer Architecture, Medical Ultrasonics/Imaging, Advanced Digital Signal Processing, Computer Graphics, Applied Artificial Intelligence.

EXTRA-CURRICULAR ACTIVITIES MEMBER OF THE CHARLOTTE AREA ROBOTICS TEAM AT UNCC
Developing and implementing Computer Vision and efficient Pattern Recognition techniques for recognizing Arabic scripts and identifying different objects using a microcontroller for a quadrotor robot being developed by Charlotte Area Robotics to be entered in a competition in August 2011.

PERSONAL INFORMATION	Date of Birth	12 th November, 1986
	Nationality	Indian
	Work Status	F-1 Student with CPT
	Languages Known	English, Hindi, Marathi
	Hobbies	Playing Guitar, Computer Games, Adventure Sports.

REFERENCES Dr. James M. Conrad, Ph.D., PE, PMP. Associate Professor, Electrical and Computer Engineering, UNC Charlotte. Phone: 704-687-8597. Email: jmconrad@uncc.edu