Ankur K. Ambastha

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EDUCATION

B.S., Computer Engineering, University of California, Riverside   June 2014

TECHNICAL SKILLS

- **Areas of Focus:** Embedded systems, automotive technologies, telematics, automation, mobile application development, web development, hardware and software engineering, robotics, user interface.
- **Software:** AVR Studio, Arduino IDE, Eclipse, Xilinx, MatLab, Cadence Suite.
- **Programming:** C/C++, Python, Assembly, Java, HTML, CSS, JavaScript, PHP, MySQL, jQuery.
- **Operating Systems:** Unix (Linux, Android, Ubuntu, Arch Linux, BSD), Windows.

COMPUTER ENGINEERING EXPERIENCE

Embedded Systems Lab Research: University of California, Riverside   Sept. 2013 – Jan. 2014

- Constructed and programmed a Freescale-powered Intelligent Car to drive autonomously following a simple line.
  - Software run on the Freescale Freedom platform connected to a specialized shield and peripherals.
  - Used a line-scan camera to detect a dark line on a light colored track for vehicle control.
  - Real-time algorithms controlled steering using servos and acceleration through motors.

Self-Guided Projects   Aug. 2012 – June 2014

- Built a mobile, on-board diagnostic tool powered by Linux to monitor engine and vehicle operational statistics.
- Automated home power outlet control through the Internet using a networked controller running Linux hard-wired to a power outlet remote control.
- Set up a motion-activated video surveillance system with immediate upload and archival to a remote location using a webcam attached to a networked Linux controller running Motion software with FTP upload capabilities.

Embedded Systems Courses: University of California, Riverside   Sept. 2011 – June 2014

- Senior Design: "Building a Better Nest" – BitBucket Repository: http://goo.gl/ZR9w6T
  - Developed a digital learning thermostat hub with separate temperature and motion sensing nodes.
  - Implemented a wireless device ping module for increasing user home detection accuracy.
  - Designed a user friendly Android application interface for enhanced interaction with the hub.
- Developed and implemented a mental and physical agility testing game with VGA monitor output, running on both a microcontroller and FPGA concurrently.
- Designed and programmed a 2-player interactive racing game on an LCD using an ATmega32 microcontroller.
- Developed skills in software design, efficiency, algorithms, embedded systems, networking, programming, scripting, system administration, hardware integration.

WORK EXPERIENCE

- *Ambastha ATHLETICS*   Aug. 2014 – Current
  - Founder, Owner, and Coach
  - Building convenient and healthy lifestyles, specifically for busy people, by addressing exercise, nutrition, and lifestyle through actionable blog articles, premium online/in-person coaching programs, seminars, and more.
- *University of California, Riverside Student Recreation Center*   July 2012 – Current
  - AFAA Certified Personal Trainer and NASM Fitness Nutrition Specialist
  - Applying fitness and nutrition expertise combined with interpersonal skills to motivate clients to achieve their fitness goals, higher self-esteem and self-worth, and a greater overall sense of well being.

PROFESSIONAL AFFILIATIONS AND INVOLVEMENT

- *Association for Computing Machinery* – Sept. 2009 - June 2014
- *Institute of Electrical and Electronics Engineers* – Sept. 2009 - June 2014
- *Society of Automotive Engineers* – Certified Shop Engineer (Sept. 2009 - June 2014).
- *Theta Tau Professional Engineering Fraternity* – President (Apr. 2013 - June 2014), Founding Father (Jan. 2012 - June 2014), and Vice President of Professional Development (Jan. 2012 - Mar. 2013).
- *Sigma Phi Epsilon Fraternity* – Apr. 2011 - June 2014