

Sanjay Derbyshire

Electrical Engineer and Programmer

Summary

Electrical engineer with math, science, and programming background seeking a career within fields of cutting edge technologies. Excellent research, problem solving, and creative thinking skills.

Education

Colorado State University, Electrical Engineering

2012-2015

Recent graduate of the Honors program majoring in Electrical Engineering. Through a rigorous course load, graduated in only three years. Participated in various student groups and completed specific coursework in programming, antennas and radiation, power systems, networks, and digital signal processing.

Work Experience

CSU Radar Engineering Research Group, Dr. Chandrasekar

2013 - 2015

Was the only undergraduate in one of CSU's most productive research groups that pioneers work on radar systems and various applications of radar. Worked on various projects in the group as a research assistant, as well as for senior design. Was one of six students across the nation selected for the NSF CSU-CHILL REU internship.

VCHILL2.0, URA + NSF REU Sept. 2013 - Jan. 2015

Constructed the framework for a revolutionary Python web system that allows users to view and perform searches on radar data, the first system of its kind. Contributing author to "VCHILL 2: A System for Semantic Processing of Radar" which was presented at the 2015 American Meteorological Society Annual Conference.

Other: Waveguide Subsystem Testing (May-Aug. 2014), Radar File Conversion (Oct. - Dec. 2013)

Dual-Frequency Radar from Space, Sr. Design Sept. 2014 - May 2015

Senior design project to align the new NASA GPM space radar to a WSR-SSR ground radar using complex analytic methods and computational analysis. The concluding goal of this project was to volume match radar measurements between the two radars using various programming languages. Nominated for the CSU ECE Department's 'Senior Design Best Paper' award.

Honors

1st Place 2015 Spring IEEE Open Design Competition, Team Leader, Colorado State University

2015

Team leader for a project that built a 'coffee table' system to perform various home automation tasks to simplify a user's daily flow.

Various functions were coded in Python and C++ and multiple hardware systems were created. Tools created included voice control, wireless networked communication, automatic USB backup, light control, laundry notifications, a universal remote, and a thermostat.

ECE Department Academic Achievement Award, Colorado State University

2013, 2015

Was the only freshman in any of CSU's engineering departments to be recognized for academic achievement within their department at Engineering awards night. Also received this award as a senior.

Other: National Merit Finalist, Eta Kappa Nu, CSU College of Engineering Dean's List, 2nd Place 2015 Winter IEEE Open Design,

Tau Beta Pi, Order of Omega, National AP Scholar,

Campus Involvement

Presidential Leadership Program, CSU

2012-2013

Participated in the Presidential Leadership Program at Colorado State University; organization is designed to give students the opportunity to learn how to lead in their own unique way.

Engineering Student Tech Committee, CSU

2013-2014

Selected as one of two undergraduate students to represent the ECE department on the ESTC board. ESTC met regularly to decide how to allocate the engineering student tech fee budget by exploring various proposals.

Other: Honors Student Leaders, Honors Student Association

Skills

- Microprocessors
- Antennas
- DSP
- Cadence
- Python
- Web Frameworks
- Java
- HTML
- Linux
- Leadership
- MATLAB
- Microsoft Office

Other Interests

Music performance (viola, ukulele, guitar), ethnic foods, older films, running, English Premier League, hobby electronics.