

# ANVESH CHERUKUPALLY

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## OBJECTIVE

Proficient Engineering Professional eager to contribute advanced education, technology, prototyping, design, mechanical development, project management and consultation support expertise in a challenging Engineering assignment.

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## CAREER PROFILE

- Bachelor of Science degree in Biosystems Engineering.
  - Dean's List student.
  - Well-versed in SolidWorks, AutoCAD and Matlab.
  - Honeywell Intern Program 'Best Progressed Student Award.'
  - Outstanding capacity to provide contributions in technical team environments.
  - Knowledgeable in biological processes, design engineering, sensors/controls and thermodynamics.
  - Effectively interact with diverse groups and professionals at all levels.
  - Well-organized multi-tasker with strong detail orientation.
  - Adept in aligning prototyping devices and research documentation.
  - Skilled consultant and advisor to clients and senior management.
  - Proven testing and troubleshooting capacity.
  - Record of progression to positions of increasing authority and responsibility.
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## PROFESSIONAL CERTIFICATIONS

Nuclear Gauge Certification  
ESRI - ArcGIS 2010

## TECHNOLOGY SKILLS

SolidWorks, AutoCAD, Matlab, C++, Java, Python, CFD, SGeMS, VBA programming, MS Office Suite, Mac iWork, CNC machining equipment, grinders, saws, glass blowing

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## PROFESSIONAL EXPERIENCE

National Aeronautics and Space Administration (NASA) & SETI Institute/SJSU 2010 – Present

### Intern Research Specialist

- Developed and conducted numerous thermal absorbance and spectra measurements using BRUKER VERTEX 70 Spectrophotometer and BRUKER EM27.
- Analyzed Spectroscopy data and created reports based on test results.
- Utilize Spectroscopy OPUS 6.5 program to monitor Infrared emission produced by igneous rocks.
- Initiated detailed 3D Spectroscopy data and raster cartographic files for earthquake/seismic prediction precursors.
- Designed mirrors to collect Infrared transmittance spectra of water molecules given off by igneous rocks.
- Examined Infrared Spectroscopy emission data to model earthquake/seismic precursors.
- Created a database library of thermal transmittance absorbance spectra for various igneous rocks.

United States Department of Agriculture & University of Arizona, Tucson, AZ

2010

### Field Research Specialist

- Developed applications and module surface irrigation for various studies.
- Successfully develop applications and use SRFR software for modeling surface irrigation.
- Track and monitor irrigation advance rates while collecting wastewater irrigation data.
- Perform programming for and use of ESRI ArcGIS 9.2,9.3 and ArcPad 7.1, (geographic information systems) for surface irrigation projects.
- Utilize Trimble Planning GPS Pathfinder for land surveying, Remote Sensing of Aerial Photo Interpretation and Geodatabase Management.
- Initiated highly detailed vector/raster cartographic maps utilizing Arc Map 9.3 for soil surface irrigation

**Undergraduate Research Assistant - CAMRA Project 2008**

- Established infrastructure at UA Water Village.
- Tested Artificial Neural Network model to identify hypothesized biological agents.
- Performed mathematical modeling and statistical analyses.
- Examined accuracy of EPANET Water Quality model using Computational Fluid Dynamics.

**Teaching Assistant - Introduction to AutoCAD 2008**

- Assisted instructor in maintaining supporting learning environment.
- Monitored and graded students' progress, tests and papers.
- Helped students with assignments.

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## PROJECTS

University of Arizona, Tucson, AZ

**Team Project: Solar Desalinization System for Navajo Nation**

- Developed scale model of desalinization plant and submitted grant proposal.

**Team Project: Biosensor Detection of Copper**

- Created prototype using SolidWorks and animation of device in use, as well as mock grant proposal.

**Applied Project: Pepper Spray Mount**

- Coordinated with three team members to develop and prototype pepper spray mount for M-16 rifle.

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## EDUCATION

Portable Gauge Radiation Safety and Hazmat Training, 2010

EVIT Machinist Program, Affiliated with Honeywell Intern Program, 2004

University of Arizona, Tucson, AZ

**Bachelor of Science, Biosystems Engineering (Minor Materials Science and Engineering) 2009**

San Jose State University, San Jose, CA

**Masters of Science, Materials Science and Engineering**

Expected graduation 2012

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## PRESENTATIONS AT TECHNICAL MEETINGS

**A. Cherukupally**, [speaker], F. T. Freund, R. P. Dahlgren, V. Vanderbilt, G. Benjamin

"Infrared Emission from Igneous Rocks during Stressing: Contribution to Understanding Pre-Earthquake "Thermal IR Anomalies"" poster presented at EMSEV conference Chapman University October-2010.

**A. Cherukupally**, [speaker], F. T. Freund, R. P. Dahlgren, V. Vanderbilt, G. T. Tsoflias

"Stress-Activated Electromagnetic Emission and Reflection from Gabbro and Gabbro-Diorite" poster presented at AGU (American Geophysical Union) conference San Francisco December-2010.

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## PROFESSIONAL ASSOCIATES

EMSEV (Electromagnetic Studies of Earthquakes and Volcanoes; 2010-present).

AGU (American Geophysical Union; 2010-present).