

# Krishna Vijay Samayamantri

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## Objective

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Seeking a position as an entry level data scientist.

## Summary

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Biomedical engineer with 5 years of research and development experience in biomedical data analysis for diagnostics and human machine interface algorithms. Worked with ECG, EEG, EMG signals and IR imaging. Failed entrepreneur.

## Education

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M.S. Electrical Engineering (Biomedical Engineering Specialization)  
California State University, Los Angeles - Spring 2019  
Thesis: Performance of an SVM Classifier on Non-Invasive EEG for a 2-State BCI Controller  
GPA: 3.855/4.0

B.E. (hon.) Electrical and Electronics Engineering  
Birla Institute of Technology and Science (BITS) - Pilani - Fall 2012  
GPA: 5.37/10.0

## Certifications

Advances in Imaging and AI: Medical, AR-VR, Self Driving Cars, MIT Professional Programs - Jul 2019

Entrepreneurship: Launching an Innovative Business Specialization, Coursera and University of Maryland, College Park - Apr 2016

## Related Experience

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### Work History

**Krishna Vijay Technologies, Hyderabad, India, Founder** - Feb 2015-July 2016

- Gyaan Academy – YouTube education channel. Personalized education. Learn in your mother tongue.

**Student Research Intern, CEERI - Chennai, India** - Jul 2012-Nov 2013

- Developed algorithm to find patterns in ECG data to classify into arrhythmia or normal heartbeat.

### Projects

**Performance of an SVM Classifier on Non-Invasive EEG for a 2-State BCI Controller (Master's thesis)** - Feb 2018-May 2019  
Control algorithm that interprets EEG of subject to detect their action or intent to control a robotic arm.

**Automated IR Imaging of Broken Bones (AIRiBnB)** - Oct 2016  
Model to quickly identify and localize bone fractures from other injuries using IR imaging.

## Multiple Object Tracking in 3D Using Stereovision

- Jan - Apr 2012

Algorithm that tracks multiple objects in 3 dimensions using RJMCMC models for path prediction even during occlusion.

## Relevant Courses

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Fundamentals of Machine Learning • Neural Computation • Stochastic Systems and Estimation • Digital Signal Processing • Biomedical Signal Processing

## Skills

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**Fields of Expertise:** Machine Learning, Signal Processing, Image Processing, Biomedical Diagnostics, EEG, ECG, EMG, Motion Capture Data

**Programming Languages:** C, C++, Matlab, Python, LabVIEW

**Markup:** L<sup>A</sup>T<sub>E</sub>X, HTML, CSS

## Accomplishments

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- Published the paper titled, “Classification of Data Obtained from Portable ECG Devices Using Support Vector Machines” in ICAES-2013, an IEEE affiliated conference.
- Third prize in BioHackLA Hackathon conducted at Cal State LA on October 22-23, 2016
- Recipient of Honor’s convocation - 2018
- Member of Golden Key Honor Society - 2018

## Additional Experience

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1. Volunteer at Art of Living Foundation, LA chapter, 2016 - present
  - Setup-breakdown team lead for all events since 2017
  - Resident sound engineer for all events since 2017
  - Tech support for audio-visuals
2. Member of Electronics and Robotics Club, BITS-Goa, 2008-2010
3. Volunteer at Nirmaan, BITS-Goa chapter, 2008-2010
4. Member of Department of Photography, 2008-2010
5. Member of Aeronautics Club, BITS-Goa, 2008

## References

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Available upon request.