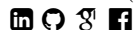# Venkaiah Chowdary Kavuri

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in ○ ⑧ ⨍

April 12, 2016

Dear Hiring Manager,

I am Venkaiah Kavuri, postdoctoral researcher from Dr. Arjun Yodh's lab in Department of Physics at University of Pennsylvania. I am writing in to express my interest in **Engineer/Scientist** position at your company. As a forward thinking postdoc, I am motivated to be part of several projects simultaneously by involving in different roles such as development, data processing/programing and testing. Areas of strength that will guide me in delivering successes towards meeting your organization's goals include **Optical Instrument Development, Signal Processing, Image reconstruction, Algorithm Development, and Statistical Analysis.**

Some of my technical proficiencies include:

- Designing, engineering and testing of optical device prototypes and translating them to clinics.
- Demonstrated record in optical modeling using problem-solving techniques such as Numerical modeling/Simulation, Imaging-Inverse problems, Imaging-Optimization and Data mining.

While working as a Postdoc at University of Pennsylvania; I designed instruments to sense/measure changes in optical absorption, scattering and dynamic scattering. I also posses strong fundamental knowledge about amplitude, phase, polarization and coherence properties of NIR-light and using them to probe information about biological tissue. Specifically I originated, designed and built an optical flow and absorption measurement device to be used in neuro-ICU for predicting recurrent stroke.

I am also working on wearable blood flow measurement device(using Intel Edison) to be used for measuring blood flow in muscle. During my Phd at University of Texas Arlington, I applied statistical methods to develop a new technique for detecting and imaging early stages of aggressive prostate cancer by creating, engineering and building a TRUS-compatible DOT Probe. I also originated, designed and built multi-spectral, low-cost and portable DOT instrumentation then improved existing image reconstruction methods by combining depth compensation algorithm and L1-regularized least squares method.

Accomplishing large scale projects offered opportunities to take an active leadership and team member roles for work within an interdisciplinary team of scientists and physicians. I put together (hiring/recruiting) and directly supervised a team to help me with developing the device and work with patients. I welcome the opportunity to participate in a personal interview to answer your questions and better present my qualifications. I look forward to speaking with you soon.

Thank you for your time and consideration.

Sincerely,

Venkaiah Kavuri