

# VENKAIAH CHOWDARY KAVURI

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Dear Hiring Manager,

I am writing to express my interest in **Research Scientist, Biosensors and Signal Processing role**.

As a forward-thinking postdoctoral researcher with proven skills in Bioengineering and more than three years of directly applicable technical experience; I would use my talents and academic knowledge to assist in bringing projects to successful completion.

With excellent problem-solving and solution development abilities; I have the skills to create new and improve existing prototypes. I am also motivated to be part of several projects simultaneously by involving in different roles such as development, programing and testing.

Areas of strength that will guide me in delivering successes towards meeting your organization's goals include Instrument Development, Scientific Programing, Signal Processing, Algorithm Development, Data Processing, and Statistical Analysis.

Some of my technical proficiencies include:

In-depth understanding of global and local optimization and a working knowledge of advanced signal processing techniques (such as, Kalman filtering and time-varying frequency analysis).

Demonstrated record in biophysical modeling using problem-solving techniques such as numerical modeling, inverse problems and optimization.

Skilled at designing, conducting and testing in vitro/in vivo experiments to thoroughly analyze device prototypes and develop commercially-viable product enhancements.

While working as a Posdoc at University of Pennsylvania; I originated, designed and built a optical flow measurement device to be used in Neural ICU. I am also working on wearable 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 reconstruction methods by combining depth compensation algorithm and L1-regularized least squares method.

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