Pooja Singhal

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Experience

Scientist, Theranos Inc., Palo Alto, CA — **Nov 2013 - Present**

- Developed the materials design of Theranos IVD blood collection devices for scalable and reliable manufacturing, which is being used for Theranos product manufacturing.
- Perform diagnostic data and image analysis in R for determining device performance metrics, perform literature review, draft technical reports, and participate in conversations for regulatory submissions to the FDA for development of this core Theranos product.

R&D Engineer Co-op, Abbott Vascular, Santa Clara, CA — **May 2013-Oct 2013**

- Worked on the R&D studies of the ABSORB vascular stent system.
- Developed PYTHON scripts for data cleaning and statistical analysis of mechanical performance data for use of ABSORB stent system in the peripheral applications.

Graduate Research Assistant, Texas A&M University, TX — **Sep 2008-May 2013**
Lawrence Scholar Program Fellow, Lawrence Livermore National Lab, CA — **May 2010-May 2013**

- Developed remotely actuated stimuli sensitive shape memory foams with the lowest known density to modulus ratio for porous materials, for the treatment of intracranial aneurysms assuming full responsibility for the device design, fabrication, and validation via in-vivo and in-vitro data collection and analysis.
- Developed the material composition for control over remote actuation and biodegradation properties in physiological media based on theoretical and empirical investigations.
- Optimized the material processing parameters in fabrication and post fabrication stages for precise control of the material morphology, and performed imaging analysis on the material morphology.

Applications Engineer, Oracle Corp, India — **July 2005- July 2007**

- Worked in PL/SQL for database management, maintenance of code, and software bug resolution.
- Developed algorithms for optimized data search in databases for the Oracle Projects User Interface.

Education

Texas A&M University (TAMU), College Station, TX — **Aug 2008 - Mar 2013**
Ph. D., Biomedical Engineering

Indian Institute of Technology (IIT), Kanpur, India — **Jul 2001 - May 2005**
B. Tech., Chemical Engineering

Skills

- Machine learning, data analysis, statistics, mathematical modeling, optimization
- Designing and performing experiments to collect data (engineering and blood diagnostics)
- Communication of results to business leaders, regulatory agencies and research community
- Programming: R, SQL, Matlab, C/C++

Courses

- Applied Mathematics, Biostatistics, Biomechanics, Statistical Process Control
- Data Science Courses (John Hopkins University, Coursera), Machine Learning (Andrew Ng, Coursera))

Honors/ Awards

Publication Cover Art/Feature article — **2012**
April 15, 2012 issue of Journal of Polymer Science, B: Polymer Physics

Lawrence Scholar Program Fellowship, LLNL, CA — **2010**

American Heart Association Pre-doctoral Fellowship — **2010**
Declined due to conflict with the Lawrence Scholar Award.