

Abraham Thomas

Biotechnology Engineer at Bionanomatrix Inc

Philadelphia, PA - Email me on Indeed: [indeed.com/r/Abraham-Thomas/eab9d0fe51059aaf](https://www.indeed.com/r/Abraham-Thomas/eab9d0fe51059aaf)

WORK EXPERIENCE

Investigation Engineer

Merck - Lansdale, PA - March 2012 to Present

- Support vaccine production by investigating atypical events and providing quality control when events occur.
- Draft investigation reports, which serve as a record of atypical events and describe measures taken to ensure that assigned atypical events are thoroughly controlled, assessed, mitigated, and all necessary corrective and preventative measures are put in place and properly executed.
- Collaborate with diverse functional groups to thoroughly investigate, correct, and prevent atypical events and provide a multi-faceted path forward, while cultivating collaborative partnerships.
- Perform research in various scientific fields in order to better comprehend atypical events and inconsistencies pertaining to raw materials, infrastructure, and sterile equipment used in vaccine production.
- Meet strict deadlines in a highly regulated GMP environment which requires thorough in depth investigations and subsequent reports which are examined during regulatory audits.
- Help optimize and provide training for various procedures used in vaccine production by employing an LSS approach to achieve maximum efficiency and eliminate margins for error.

Skills Used

- Working in a robust Quality system and understanding requirements for FDA compliance.
- Understanding of Kaizen philosophy, and the implementation of Lean Six Sigma (LSS) concepts in a manufacturing environment
- Maintaining a GMP manufacturing environment.
- Utilizing SAP and various Merck software applications.

Biotechnology Engineer

Bionanomatrix Inc - Philadelphia, PA - September 2008 to September 2011

- Designed and executed experiments to optimize functional attributes of nanoAnalyzer® chips, as well as increase efficiency of DNA runs and subsequent data analysis.
- Developed data acquisition techniques to improve the resolution of the data collected for analysis.
- Developed best practices for data acquisition by using a structural approach highlighting elements of the scientific method, which improved efficiency of R&D team by improving data quality and acquisition time.
- Reviewed and drafted standard operating procedures to provide documents that convey all pertinent procedural information in an accurate, clear, and concise manner.
- Trained and mentored co-workers and new employees in chip assembly, quality control procedures, and data analysis.

- Performed skilled tasks in a clean room environment with fine tools, chemicals, and semiconductor materials.
- Solved an assortment of design and process concerns using creative and resourceful thinking.

Engineering Assistant

Tangibl LLC - Yardley, PA - 2005 to 2006

- Drafted AutoCAD blueprints of electrical, plumbing, and HVAC infrastructure.
- Assisted engineers in revising and organizing blueprints of previous job sites.

Electronics Specialist

Edtronic - Philadelphia, PA - 2001 to 2002

- Wired and installed security and multimedia networks as well as necessary hardware and software components for commercial and residential properties.
- Provided technical support of electrical installations.
- Worked with IT and cutting edge networking components.

EDUCATION

Minor in Mechanical Engineering

Drexel University - Philadelphia, PA

January 2002 to January 2008

B.S. in Biomedical Engineering: Biomechanics and Human Performance Engineering

Drexel University - Philadelphia, PA

January 2002 to January 2008

SKILLS

Windows and Mac Operating Systems, Microsoft Office, SAP, Merck Applications, Lean Six Sigma Philosophy, SPSS Statistics, Labview, AutoCAD, Pro/Engineer, Python Programming, SolidWorks, MatLab, Maple, ImageJ.

ADDITIONAL INFORMATION

Accomplishments:

US Patent Pending (EFS ID: [...] [...])

Reduced Non-Specific Binding and Environmental Contamination by Surface Modification in Fluidic Devices

Managed studies which tested numerous experimental variables in an organized manner which allowed the vision of the proposed procedures to become a reality. Contributed to development of procedures to be patented by performing various experiments to validate claims made in patent submission.

Senior Design (Drexel University)

Worked in association with medical device company (Synthes) to help develop an ultrasonic craniomaxillofacial bone depth measurement apparatus. Researched characteristics of ultrasound and its effect on the human body. Performed cadaver studies to get a better idea of craniomaxillofacial features and their response to ultrasonic waves. Developed a comprehensive business plan for the bone depth measuring unit from

development to obsolescence. Performed market analysis, cost/benefit matrices, and various business plan development exercises.

Core Competencies

- Solid Mechanics
- Mechanical Design and Analysis
- Statistical Analysis
- GMP Compliance
- FDA Compliance
- Product Innovation and Optimization
- Design of Experiments
- Test Method Validation