**Britto Thomas**

Lead Machine Learning Engineer in Healthcare

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## EXPERIENCE

**BioTech Innovations***June 2020 - Present*

Lead Machine Learning Engineer

Revamped patient outcome predictive models using advanced LSTM networks, enhancing accuracy by 35%, which directly improved patient care strategies and reduced hospital readmission rates.

Orchestrated the integration of machine learning into genomic data analysis, resulting in a 50% reduction in processing times and paving the way for more personalized medicine approaches.

Led a cross-functional team of 12 data scientists and engineers in developing an AI-driven diagnostic tool, reducing false negatives by 45% in preliminary trials, and expediting regulatory approval processes.

Deployed natural language processing algorithms to interpret clinical notes, achieving an 80% increase in the speed of information retrieval and aiding in faster decision-making for patient care.

Championed the adoption of cloud-based machine learning workspaces using AWS Sagemaker, increasing model scalability and allowing for 30% more experimentation with novel algorithms.

Initiated and directed a quarterly machine learning workshop for the engineering department, upskilling 40+ team members in the latest techniques, such as GANs, improving team innovation output by 25%.

Contributed to the publication of 3 industry-acclaimed research papers on the applications of machine learning in early cancer detection, enhancing the company's profile and attracting $5M in research grants.

**HealthTech Solutions***January 2017 - May 2020*

Senior Machine Learning Engineer

Developed a machine learning-driven EHR system which streamlined patient data processing, leading to a 40% reduction in administrative workloads and a 20% increase in data accuracy.

Implemented a feature engineering pipeline using Python and scikit-learn that enabled the creation of highly predictive models for patient readmission risks, slashing readmission rates by 25% within a year.

Collaborated with external healthcare providers to tailor machine learning solutions, boosting predictive accuracy by tailoring models to specific demographic data, resulting in a 30% increase in partnership engagements.

**TechMD***October 2013 - December 2016*

Machine Learning Engineer

Automated the analysis of medical images with convolutional neural networks, reducing the manual review time by 60% and supporting radiologists in diagnosing diseases with higher precision.

Pioneered the use of unsupervised algorithms for anomalies detection in medical data sets, identifying potential data breaches and health fraud with an efficacy improvement of over 70%.

Enhanced predictive modeling projects using R and TensorFlow for chronic disease progression, optimizing treatment plans and leading to a 15% improvement in patient quality-of-life scores.

**Quantum Health Analytics***August 2010 - September 2013*

Data Scientist

Employed statistical analysis and machine learning techniques to design health risk stratification models, which informed insurance underwriting procedures and reduced claim costs by 20%.

Facilitated the shift from traditional analytical tools to Python-based platforms for data analysis tasks, boosting efficiency by 40% and reducing the time-to-insight for strategic decisions.

Produced and maintained thorough documentation for data science workflows, ensuring reproducibility and compliance with healthcare regulations, ultimately safeguarding against potential audit risks.

**EDUCATION**

**Resume Worded University***May 2013*

Master of Science - Biomedical Informatics

Research focus on predictive modeling for patient outcomes

**Resume Worded Institute***April 2017*

Certified Professional in Healthcare Information and Management Systems (CPHIMS)

Part-time professional development certification alongside full-time role at HealthTech Solutions

## SKILLS

Machine Learning: Deep Learning, Neural Networks, NLP, SVM, Random Forests, Gradient Boosting

Programming: Python (Pandas, NumPy, Scikit-learn, TensorFlow, Keras), R, SQL, Java

Data Management: Hadoop, Spark, MongoDB, Cassandra, PostgreSQL, BigQuery

Cloud & DevOps: AWS (SageMaker, Lambda, EC2), Docker, Kubernetes, Jenkins, Terraform

## OTHER

Certifications: Google Cloud Certified - Professional Data Engineer (2021), AWS Certified Machine Learning - Specialty (2020)

Publications: Co-authored 3 papers published in the Journal of Health Informatics on Machine Learning applications in Genome Studies

Speaking Engagements: Guest speaker at MLConf 2021, Panelist at the Annual Healthcare Data Analytics Conference (2019, 2020)

Professional Memberships: Association for Computing Machinery (ACM), Member of IEEE Computational Intelligence Society