Mosadoluwa Obatusin

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EXPERIENCE

2018 – Present **Mount Sinai Hospital - Nash Family Center for Advanced Circuit Therapeutics** **New York, NY**

(October 2018 – Present)

Programmer Analyst II

• Architected two novel control applications using the MVVM design pattern in C# and the Medtronic Summit research development kit (RDK) which allowed the use of Deep Brain Stimulation (DBS) as an investigational treatment for depression at-home and in-clinic research.

• Developed and deployed automated data upload from patients' at-home tablet device to a secured cloud platform thus allowing for heterogenous dataset to be synced and easily accessible to investigators.

• Implemented python scripts to analyze autonomic datasets, R scripts to analyze accelerometer data, and other peripheral measures that support the investigation of treatment resistant depression based on activity and sleep tracking.

• Managed Linux computing cluster, configuring Bright system hardware and installing scientific software for high performance computational projects.

2020 - 2021 **Onye** **New York, NY**

(March 2020 – February 2021)

Co-Founder, Technology Lead

• Built company's Minimum Viable Product (MVP) resulting in over 1000 appointments scheduled.

• Led the technical team on assigned projects giving technical oversight

• Architected the company's technological plans by setting up a GCP cloud solution environment and ensuring a successful operation of the cloud solution.

• Planned company's data security and user access based on defense in depth approach.

2018 **Emory University – Depression Biometrics Lab** **Atlanta, GA**

(January 2018 – September 2018)

Data Analyst

• Created the first GUI application in MATLAB for the Medtronic PC+S implanted neural stimulator used in depression research, thus reducing data collection time by over 50% and minimizing interoperability errors from over 5 minutes to 10-60 milliseconds.

• Managed the transfer of over 20 TB of research data from local servers to the distributed database CranialVault Cloud (CranialCloud) which ensured data security and recovery.

2017 - 2018 **The Coder School – East Cobb** **East Cobb, GA**
(October 2017 – September 2018)
Code Coach
• Mentored students in learning how to program in Scratch, Python and how to interact programmatically with real world objects using the raspberry pi hardware.
• Organized coder fairs, allowing students the opportunity to demonstrate their skills and introduce more advanced programmers to the world of IoT, or Internet of Things.
• Wrote weekly notes and coder reviews providing parents with insight into their kids' learning progress.

2014 – 2016 **U.S. Department of Veterans Affairs – War Related Illness and Injury Study Center (WRIISC)** **East Orange, NJ**
(April 2014 – August 2016)
Biomedical Engineer
• Acquired autonomic, and vestibular signals on volunteer subjects using LabChart and LabVIEW.
• Modified C++ code used in testing the vestibular-ocular reflex (VOR) of volunteer subjects.
• Developed MATLAB scripts to pre-process data, improving data quality by over 90%.
• Implemented image processing algorithm to reduce noise in ultrasound images, thus salvaging 52% of messy data.
• Initiated and designed an Excel user form using VBA that reduces data entry from hours to minutes and minimized frequent errors to less than 5%.
• Programmed XBee radio module to control a portable blood pressure machine via a mesh network, eliminating signal dropout during experiments.

EDUCATION

2012 – 2013 **Cornell University** **Ithaca, NY**
Master of Engineering (MEng), Biomedical Engineering
• GPA: 3.3

2008 - 2012 **New York Institute of Technology** **New York, NY**
Bachelor of Science, Biomedical Engineering
• GPA: 3.7
• Summa Cum Laude, Dean's List

SKILLS

Computer Skills Python, MATLAB, R, C#, Visual Studio, .NET, XAML, WPF, Mysql, HTML, CSS, JavaScript, JQuery, ReactJS, Firebase, Google Cloud Platform (GCP), Firebase, Git, Docker, Linux

Awards Martin Luther King Jr. Award —NYIT (2012)