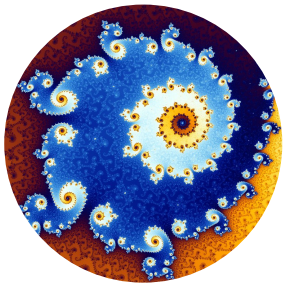

Remy **Ochei**

Bioinformatics · Neuro-prosthetics · Computational Linguistics · Theoretical Neuroscience · Human-Computer Interaction · Machine Learning · Algorithms

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Eadem mutata resurgo.
"Changed, yet the same, I rise again."

Education

University of Texas at Dallas — *Dallas, TX*
Ph.D. Candidate, Computer Science — *2018 - 2019*

University of Texas at Dallas — *Dallas, TX*
Masters Cert. in Systems Engineering and Management — *2017 - 2018*

Baylor College of Medicine — *Houston, TX*
Medical Degree — *2015 - 2017*
Medicine seemed to me a narrow tunnel through which I would have to shed most of my identity in order to fit. I began to realize that being a doctor was not the best way that I could help others, or help myself.

Duke University — *Durham, NC*
A.B. in Computer Science, B.S. in Neuroscience, Music Minor, Japanese Minor — *2009 - 2013*
I entered Duke University with the primary goal of understanding the mind, thought, and the nature of intelligence. It's hard not to be envious of the ambitiousness of youth.

Harvard University — *Cambridge, MA*
Summer School — *2008*
I took the course Intensive Introduction to Data Structures. By this time, my love of Computer Science had already been deeply fomented. I still have my printouts of the lecture slides.

Experience

The Bracket Studio — *Remote*
Computational Genie (Machine Learning Engineer, Data Scientist, Software Engineer) — *2020 - Present*

- Designed a proof assistant that semi-automatically verifies the correctness of computer programs
- Built an adaptive testing recommendation engine for nurses
- Implemented a GPU version of a CPU only computer vision library
- Built a scraper to parse equity news sites for IPO evaluations
- Wrote a lesson on using bootstrapping to compute Upside Potential Ratios
- Taught a programming bootcamp
- Tutored computational physics

Dolthub — *Dallas, TX*
Software Engineer, Data Marauder — *2020 - Present*
Dolt adds revision control capabilities and git semantics to SQL databases. I preside over data bounties, contests in which our community members collaborate and compete to construct large and intriguing datasets.

- Interfaced with our Discord community, answering bounty participant questions and reviewing their pull requests.
- Designed the data bounties, from the contest copy to the sql schemas, and prototyped the collection process to anticipate participant difficulties.
- Wrote programs to facilitate working with and understanding massive datasets.

OfficeHours.com, Upwork, Chegg — *Dallas, TX*
Freelance Tutor — *2018 - Present*
Tutoring is diagnostic in nature; often there is one small misunderstanding that once uncovered and corrected allows everything to fall in place. I find being the catalyst aiding in such transformations to be deeply rewarding. I enjoy the dual challenge of comprehending both the subject matter and the student in order to make the complex accessible.

Self-Decode — *Dallas, TX*
Bioinformatician — *2019 - 2020*
I worked as a bioinformatician (bioinformaticist) for Self-Decode, which involved understanding and transforming primary literature in medicine, statistics, and computer science.

- Worked with massive genomic files.
- Calculated polygenic and behavioral risk scores for serious illnesses, such as cancers, heart disease, and COPD.
- Designed procedures to convert these scores to "intuitive, human useful" measures.
- Worked on a risk assessment for COVID-19, which estimated the severity of a case of coronavirus, given background risk factors such as age and pre-existing conditions.

Google
Mountain View, CA

Software Engineer, Virtual Assistants and Home Automation
2014 - 2015

As a member of the Third Party Actions team, I enabled interactions between third-party developers and Google Assistants.

- Handled the integration of Nest Smart Thermostats with Google services.
- Engaged in grammar engineering to bind search queries to the appropriate response.
- Attended TGIFs, weekly all-hands meetings on the global mission and activities of Google.
- Learned and used internal and open-source tools for maintaining and modifying the largest codebase in human history.

Duke University Computer Science Department
Durham, NC

Undergraduate TA
2011 - 2013

- Served as a TA for Computer Design/Organization and Introduction to Operating Systems.
- Conducted review sessions, held office hours, and helped students via Piazza (a classroom Q&A service).
- Met with professors to discuss student progress and to help plan the course.
- Graded assignments and projects.

Medical Shadowing
Dallas, TX

Premedical Student
2010 - 2013

- Duke Neurosurgery (Durham, NC)
- Methodist Hospital - Cardiology, Gastroenterology, Surgery
- Lewisville Medical Center - Oncology, Radiology

Citizen's Advocate
Coppell, TX

Journalist
2007 - 2009

Research

Gabianni Theoretical Neuroscience Lab
Houston, TX

Researcher, Probability Theorist, Programmer
2016

I studied mathematical models of sensory information processing in insects at Rice University. Most of my time was spent pouring through "Mathematics for Neuroscientists," Professor Gabianni's textbook.

Nicolelis Brain/Machine Interface Labs
Durham, NC

Undergraduate Researcher, Information Theorist, Programmer
2011 - 2013

The Nicolelis Laboratory is best known for pioneering studies in neuronal population coding, Brain Machine Interfaces (BMI) and neuro-prosthetics in human patients and non-human primates.

- Used my programming and mathematical skills to assist in the prototyping of neuroprosthetics.
- Created linear regression models and implemented Kalman Filters to predict the motor intentions of monkeys from neuronal data.
- Wrote code to integrate a mini mind-controlled car with the BMI system.

My **senior thesis** was the development of an Information Theoretic model of an Artificial Tactile Stimulation Task. The task itself was a discriminatory task in which rhesus macaques learned to distinguish digital objects based on their artificial texture which they sensed via direct brain stimulation when they interacted with the objects on a computer screen. My thesis analyzed their performance on these tasks to produce quantitative measures of the channel capacity of BMI systems.

Johns Hopkins Center For Language and Speech Processing
Baltimore, MD

Undergraduate Researcher, Computational Linguist
2012

Each summer, CLSP organizes and host a few international teams for an intensive 6-week research workshop on speech and language engineering. These very successful workshops have had a widespread impact on the Human Language Technology community.

- Developed natural language processing technologies as part of a team of researchers.
- Created automatic extractive summarizers of multi-speaker audio documents.
- Implemented a reduction of Graph Edit Distance to Binary Linear Programming.
- Computed Kullback-Leibler and Jensen-Shannon Divergence for parse trees.
- Participated in seminars for advanced techniques in Natural Language Processing and Computer Vision.
- Presented research to sponsors at the NSF, Office of the Director of National Intelligence, and Google Research.

Duke Center for Eating Disorders
Durham, NC

Undergraduate Clinical Researcher
2011 - 2012

The Duke Center for Eating Disorders provides comprehensive, individualized treatment for the entire spectrum of eating and body image issues.

- Participated in research committee investigating the link between proprioceptive awareness and anorexia nervosa.
- Proctored the Y beam balance test protocol as a measure of proprioception.
- Taught the experimental protocol to other researchers.

Extracurricular

VoraciTee — *Durham, NC*

Designer, Marketing Director, Design Director, CEO — *2009 - 2012*

Duke Chronicle — *Durham, NC*

Writer, Associate Online Editor, Graphics Editor — *2009 - 2013*

Alpha Phi Omega Service Fraternity - Lambda Nu Chapter — *Durham, NC*

Historian, Assistant Pledge Master, Webmaster, Rush Chair — *2010 - 2013*

Duke Habitat For Humanity — *Durham, NC*

Active Member, Selected for the 2011 Collegiate Challenge — *2009 - 2011*

Duke University - Project Build — *Durham, NC*

Builder — *2009*

Duke Djembe Ensemble — *Durham, NC*

Performer — *2009 - 2013*

Duke Chinese Dance Troupe — *Durham, NC*

Performer — *2009 - 2013*

Instruments — Voice, Classical Guitar, Piano, Percussion