

DAVID O NAHMIA, PH.D.

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EDUCATION

University of Maryland

PH.D. ELECTRICAL AND COMPUTER ENGINEERING

College Park, MD

Conferred: May 2020

M.S. ELECTRICAL AND COMPUTER ENGINEERING

Conferred: Dec. 2018

- *Ph.D. dissertation:* [Advances in Quantitative Characterizations of Electrophysiological Neural Activity](#).
- *Publications:* [IEEE WeRob2017](#); [IEEE/EMBS NER '19](#); [J. Neural Eng. \(Vol. 16, № 6\)](#); [ACM KDD '20](#).
- *Research focus:* Machine learning and statistical signal processing with biomedical applications.
- *Selected coursework:* Statistical pattern recognition; Neural modeling; Advanced numerical optimization; Harmonic analysis; Wavelets, time-frequency analysis, and frames; Advanced digital signal processing; Random processes; Information theory; Estimation and detection theory; Intellectual property.
- *Graduate fellowships:* An ORISE Fellowship for research at FDA Sep. 2016-Aug. 2019; A Joshua Lippincott Fellowship in 2015.

Swarthmore College

Swarthmore, PA

B.S. ENGINEERING (EMPHASES: ELECTRICAL ENGINEERING AND ROBOTICS)

Conferred: June 2014

B.A. MATHEMATICS (EMPHASIS: STATISTICS)

Conferred: June 2014

- *Graduation award:* Recipient of The Albert Vollmecke Engineering Award for 2014.
- *Engineering design thesis:* [Electromyography Analysis and Recognition for Human Device Interface](#). Research presented to the entire college at the 2014 Swarthmore Agora Talks.
- *Mathematics thesis:* Development and Applications of Wavelets in Signal Processing.

WORK & RESEARCH EXPERIENCE

FDA (U.S. Food and Drug Administration)

White Oak, MD

RESEARCH ELECTRICAL ENGINEER

09/'19 – Present

- Staff researcher and medical device consultant in the Advanced Patient Monitoring and Controls (APMC) group in the Division of Biomedical Physics (DBP) under the Office of Science and Engineering Laboratories (OSEL) in the Center for Devices and Radiological Health (CDRH).
- Conduct research to advance regulatory science through better understanding and analysis of intelligent medical device alarm algorithms for patient monitoring applications.
- Consult and provide regulatory and technical recommendations on medical device submissions in the patient monitoring, digital health, and software as a medical device (SaMD) space.

reNu Data, LLC

Gaithersburg, MD

DATA SCIENCE CONSULTING, FOUNDER & OWNER

01/'19 – Present

- Data science, machine learning, statistical and information technology consulting firm focusing on local technology and education companies. Client domains have included: biotechnology, finance, and education.
- Aid clients with large amounts of data, generally proprietary, to improved product performance, new product features, and direct future product development.

FDA (U.S. Food and Drug Administration)

White Oak, MD

ORISE (OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION) FELLOW

09/'16 – 08/'19

- Research fellow in the Human-Device Interaction (HDI) group in DBP under OSEL in CDRH.
- Conduct research and analyses on clinical trials data from electroencephalography, electromyography and motion capture along with other biosensors for evaluation and design of upper limb prosthetics.

Epic Systems Corporation

Madison, WI

SERVER SYSTEMS ENGINEER

08/'14 – 08/'15

- Manage Epic's database system, via InterSystem's Caché database on UNIX, both through development and implementation of database server systems for new Epic customers and support of existing implementations of Epic software at various health organizations.
- Implemented and managed infrastructure of a new deployment of Epic at regional hospitals while advising on purchases and interfaces from server to application, network and other peripheral systems.

SKILLS AND INTERESTS

- **Certificates:** Ham Radio License, Call Sign: KB3JHA; Dentsply Complete Denture certificate; NYSCA certified for Volleyball; Linux Prof. Inst. 101; Caché System Manager certified by Epic.
- **Computer Skills:** Python, C, MUMPS, OpenCV, HTML/CSS, MATLAB, EEGLab, LabVIEW, Mathematica, R, CCS/RTOS, Caché, L^AT_EX, Microsoft Office Suite, Adobe (Photoshop, Illustrator), ARM processors, GPUs via CUDA, Windows OS, OS X & Unix (Ubuntu, RHEL, AIX, HP-UX).
- **Languages:** Fluent: English, French & Moroccan Arabic; Proficient: Modern Standard Arabic & Hebrew.
- **Interests:** Volleyball, captain of collegiate and club teams; President of ECE-Graduate Student Association at UMD; President of Swarthmore Society of Engineers; Music development via software & DJ-ing events; Wood-working & carving.