

SEYHMUS GULER

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EXPERIENCE

Senior data scientist

June 2024 – Present

Data scientist

March 2022 – May 2024

Recursion Pharmaceuticals

Salt Lake City, UT

- Develop computational pipelines to create maps of biology from phenomic and transcriptomic data.

Research fellow, Department of Psychiatry

March 2020 – Feb 2022

Massachusetts General Hospital and Harvard Medical School

Boston, MA

- Structural and functional MRI data acquisition, cleaning, and analysis using tailored pipelines.
- Lead a project that examines the effect of brain stimulation and acupuncture on chronic low-back pain.

Research fellow, Department of Radiology

Nov. 2016 – Feb. 2020

Boston Children's Hospital and Harvard Medical School

Boston, MA

- Motion correction and missing-data completion strategies for functional MRI and tensor data.
- Designed and implemented fMRI-neurofeedback protocols to train and improve brain function via feedback.

Lecturer (part-time), Department of Electrical and Computer Engineering

June 2016 – Aug. 2019

Northeastern University

Boston, MA

- Created curriculum for and taught Noise and Stochastic Processes (EECE3468) three semesters; and Introduction to Linear Algebra and Probability for Data Science (DS5020) one semester. Evaluations available upon request.

Research assistant, Department of Electrical and Computer Engineering

Sep. 2011 – Oct. 2016

Northeastern University

Boston, MA

- Formulated, solved, and tested optimization methods for optimized current delivery in transcranial direct current stimulation (tDCS) and electrocorticography (ECoG) stimulation.

SOFTWARE SKILLS

Programming languages: python, bash, SQL, matlab, R

Python libraries: pandas, numpy, scipy, scikit-learn, pytorch, pandera, pydantic, plotly, seaborn, matplotlib, requests

Version control/publication tools: git, github, CI/CD pipelines, svn, LaTeX, Office, Mendeley

Neuroimaging data analysis: FSL, Nipype, Freesurfer, fMRIPrep, SPM, CONN, BIDS, ANTs, Nilearn, GIFT

Hands-on experience : Linux, HPC, Operating an MRI scanner, tDCS setup and application, EEG data acquisition

EDUCATION

Ph.D. in Electrical Engineering

Sep 2011 – Oct 2016

Northeastern University

Boston, MA

Thesis title: *Brain Stimulus Pattern Optimization Using Scalp and Cortical Electrode Arrays*. Advisor: *Dana H. Brooks*.

B.Sc. in Electrical and Electronics Engineering

Sep 2006 – Jun 2011

Bilkent University

Ankara, Turkey

AWARDS AND HONORS

Graduate research assistantship (GRA), Northeastern University, Boston, MA (2011-2016)

Full scholarship for undergraduate studies, Bilkent University, Ankara, Turkey (2006-2011)

Ranked 210th in 2006 National University Entrance Exam, Turkey (~ 1.5 million students)

Ranked 5th (Silver medalist) in 13th National Mathematics Olympiad, TUBITAK, Ankara, Turkey (~10k students)

PUBLICATIONS

📄 – 6 journal papers (3 first-authored), 3 conference papers, and 6 conference abstracts, all peer-reviewed.

LANGUAGES AND INTERESTS

Languages: Kurdish (Native), Turkish (Native), English (Fluent), Spanish (Beginner)

Interests: Dancing, Racquetball, Snowboarding, Jump rope, Hiking, Soccer, Chess