

SAMEER VIKRAM RAJESH

Medical Student | UT Southwestern Medical School Class of 2027

✉ sameer.rajesh@utsouthwestern.edu 📞 502-416-4342 🌐 svrajesh.github.io 🔗 sameer-rajesh 🌐 svrajesh

RESEARCH EXPERIENCE

Research Technician

Sameer Sheth Lab

📅 Jul 2022 – Ongoing 📍 Baylor College of Medicine

- I investigate neural correlates of behavior and biomarkers of symptom severity in Obsessive-Compulsive Disorder and Depression patients undergoing deep brain stimulation therapy

Research Student

Nader Pouratian Lab

📅 Aug 2023 – Ongoing 📍 UT Southwestern Medical School

- I investigate brain connectivity and the biophysical mechanisms of deep brain stimulation

Research Student

Bradley Lega Lab

📅 Sep 2023 – Ongoing 📍 UT Southwestern Medical School

- I investigate human episodic memory using graph theoretic tools to characterize brain connectivity

Undergraduate Research Student

Jay Groves Lab

📅 Aug 2019 – May 2022 📍 UC Berkeley

- I investigated the biophysics of T cell signaling *in vitro* using TIRF microscopy
- I helped characterize the dynamics of a competitive reaction/diffusion system confined to the cell membrane *in silico*

Undergraduate Research Student

Vasanthi Jayaraman Lab

📅 May 2021 – Jul 2021 📍 McGovern Medical School

- I investigated the conformational dynamics of a transmembrane phospholipid scramblase protein using single molecule FRET

SKILLS

Matlab Python Neural Signal Processing
(Computational) Neuroscience Biophysical/Mathematical Modeling

PUBLICATIONS

Conference Proceedings

- S. Rajesh, V. Berka, E. Di Zanni, *et al.*, “Investigating the conformational dynamics of phospholipid scramblase protein tmem16f *in vitro*,” in *Proceedings of Biophysical Society Conference 2022*, 2022.

INTERESTS

Broadly, I am interested in **cognitive neuroscience** and how dysfunction thereof manifests in **neuropsychiatric illness**, as well as **neuromodulatory treatment modalities** for these disorders. Additionally, I’m passionate about biophysical modeling of cellular processes.

EDUCATION

M.D. Student

UT Southwestern Medical School

📅 Aug 2023 – May 2027

B.A. in Molecular and Cell Biology

UC Berkeley

📅 Aug 2019 – May 2022

Thesis: Mechanism of PLC γ 1 activation in T Cells Characterized by Mutation and *In Vitro* Reconstitution

Minor: Physics | **GPA:** 4.00 | **MCAT:** 522

Outstanding Scholar Award in Biochemistry and Molecular Biology

OUTREACH AND LEADERSHIP

Event Coordinator

Student Interest Group in Neurology (SIGN)

📅 Jan 2024 – Ongoing 📍 UT Southwestern

- Organize events for medical students interested in neurology as a future profession

Science Olympiad

Event Supervisor

📅 Aug 2019 – Ongoing 📍 Various

- Write exams for Science Olympiad tournaments hosted by various universities (ex. MIT, UT Austin, UC Berkeley, Stanford)

LANGUAGES

English ● ● ● ● ●

Spanish ● ● ● ● ●

Tamil ● ● ● ● ●