SRIJATA CHAKRAVORTI

schak291@gmail.com • (+1)(615) 678–3416
https://my.vanderbilt.edu/srijatachakravorti/ • https://www.linkedin.com/in/srijatachakravorti

SUMMARY

PhD candidate seeking full time employment in data science and research, with focus on statistical modeling and machine learning on large datasets

TECHNICAL SKILLS

Languages: MATLAB, Python, SQL (preliminary)
Machine Learning/ Data Analysis Frameworks: Pytorch, scikit-learn, pandas, jupyter lab

EDUCATION

Ph.D. in Electrical Engineering *Expected December 2020*
Vanderbilt University, Nashville, TN, USA. GPA: **3.98**/4; GRE: **333**/340 (AWA: 5.0)

B.E. in Electrical Engineering *June 2015*
Jadavpur University, Kolkata, India. GPA: **9.35**/10, Rank: **1/118**

RESEARCH EXPERIENCE

Graduate Research Assistant, Vanderbilt University, Nashville, TN *(Jan 2017-present)*

- Used **machine learning techniques** to determine the effect of electrode placement on cochlear implantation outcomes based on imaging and clinical data from 200+ implant recipients
  - ★ Identified optimal cochlear implantation techniques for best outcomes
  - ★ Currently developing a **predictive model** for cochlear implantation outcomes which will help in patient counseling
- Applied **data mining** techniques to analyze multicenter data from 11 institutional centers and 200+ epilepsy patients, and used **statistical methods** to define **optimal ablation location** in laser ablation therapy for epilepsy
- Developed **intra-operative visualization** of clinically relevant nerve fibers in the brain
  - ★ This work will contribute to intraoperative electrode implantation guidance in **Essential Tremor** patients

OTHER EXPERIENCE

Graduate Teaching Assistant, Vanderbilt University, Nashville, TN *(Aug 2015- Dec 2016)*

- Conducted study sessions and graded assignments of 30 students for **EECE 4353/ 5353: Image Processing**
- Held office hours and graded coding assignments for 250 students in **CS 1103: Introduction to MATLAB**
- Guided 50+ incoming TA's at Teaching Assistant Orientations, 2016 and 2017, hosted by the Vanderbilt University Center for Teaching

Summer Research Intern, Indian Institute of Science, Bangalore, India *(June-July 2014)*

- Coded incoherent random trajectories in MATLAB to improve gradient and signal strength using **compressed sensing MRI** techniques

LEADERSHIP EXPERIENCE

- Technical Program **Committee Member** on The Fifth International Conference on Neuroscience and Cognitive Brain Information (BRAININFO 2020)
- Founder and steering committee member for **Women of VISE** (Aug 2017 - present), an organization for women in surgery and engineering at Vanderbilt University
- Developed educational activities about **Communications in Space** and conducted the sessions for Engineering Ambassador Network's "Engineering Into Space" for eighth grade students (October 14th, 2016 and November 21st, 2017)

AWARDS AND HONORS

- **University Gold Medal** and the **Ronita Memorial Award for Best Female Graduate** for best academic achievement in the class of 2015 in the Department of Electrical Engineering, Jadavpur University, Kolkata, India
- Vanderbilt **Graduate Student Travel Award (2017, 2018, 2019)**

SELECTED PUBLICATIONS

- **Chakravorti, S.**[*], Noble, J. H.[*], Gifford, R. H., Dawant, B. M., O'Connell, B. P., Wang, J., & Labadie, R. F. (2019). Further Evidence of the Relationship Between Cochlear Implant Electrode Positioning and Hearing Outcomes. Otology & Neurotology, 40(5), 617–624. (* indicates equal co-authors)
- Wu, C.[*], Jermakowicz, W. J.[*], **Chakravorti, S.**[*], Cajigas, I., Sharan, A. D., Jagid, J. R., . . . D'Haese, P.-F. (2019). Effects of surgical targeting in laser interstitial thermal therapy for mesial temporal lobe epilepsy : A multicenter study of 234 patients. Epilepsia, 60(6), 1171–1183. (* indicates equal co-authors)

RELEVANT COURSES

Deep Learning in Medical Image Computing, Regression Modeling Strategies, Quantitative Medical Image Analysis