SRIJATA CHAKRAVORTI

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SUMMARY

Seeking internships in Medical Imaging Analytics, focusing on statistical modeling for Image-Guided Surgery and applications of Machine Learning in Medical Image Processing

TECHNICAL SKILLS

Languages: MATLAB, Python
Deep Learning Libraries: Pytorch

EDUCATION

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

BE 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*)

- Defined **optimal ablation location** in laser ablation therapy for epilepsy by analyzing multicenter **imaging** data from 11 institutional centers and 200+ epilepsy patients.
- Determined the effect of **electrode placement on cochlear implantation outcomes** on 200+ implant recipients based on imaging and clinical data
  - ⋆ Recommended optimal cochlear implantation techniques for best outcomes based on research
- Developed interfaces to intra-operatively visualize clinically relevant **white matter fiber pathways**
  - ⋆ 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 for assignments and graded the homework of 30 students for **Image Processing**
- Supervised and graded coding assignments for 250 students in **Introduction to MATLAB**

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

Summer Trainee, National Thermal Power Corporation Limited, Simhadri, India *(May-June 2013)*

LEADERSHIP EXPERIENCE

- Steering Committee member for **Women of VISE** (Aug 2017 - Jun 2020), an organization for women in surgery and engineering at Vanderbilt University
- Developed educational activities about **Communications in Space** for eighth grade students and led the sessions for Engineering Ambassador Network's "Engineering Into Space" (October 14th, 2016 and November 21st, 2017)
- Helped **recruit new graduate students** for Vanderbilt University School of Engineering at WE17 and WE18, the annual conference of **Society of Women Engineers**

AWARDS AND HONORS

- Vanderbilt **Graduate Student Travel Award (2017-2019)**
- **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

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)
- **Chakravorti, S.**, Bussey, B. J., Zhao, Y., Dawant, B. M., Labadie, R. F., & Noble, J. H. (2017). Cochlear implant phantom for evaluating computed tomography acquisition parameters. Journal of Medical Imaging, 4(04), 1.

RELEVANT COURSES

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