Abstract:
Artificial Intelligence (AI) has received much hype lately as a solution to many healthcare problems. Improving disease recognition, identifying lesions in radiographs, accurate documentation of notes, and personalized care selection are all areas where computers promise to improve the quality of healthcare. But how does it work, and will we ever be able to trust results generated by a tangled web of math? In this talk, I will try to demystify the core concepts that compose most AI systems currently being applied to healthcare, with a focus on neural nets and so-called deep learning architectures. By understanding how these systems work, we can begin to understand the types of applications that AI is good at, what we should be comfortable handing over to the machines, and what we should still be skeptical of.

Bio:
Dr. Moffitt received his B.S. and Ph.D. from the Department of Biomedical Engineering at Georgia Tech and Emory University, and completed his postdoctoral research in the Lineberger Cancer Center at the University of North Carolina. He joined the faculty in the Department of Biomedical Informatics at Stony Brook University in 2017. The Moffitt lab uses bioinformatics and engineering approaches to improve scientific understanding and patient care in cancer, with a focus on pancreatic adenocarcinoma. Dr. Moffitt’s current research projects include predictive models in pancreatic adenocarcinoma, with a focus on precision medicine and patient response to therapy; mixture modeling and next generation sequencing techniques to study tumor, stromal and immune contributions to tumor biology; and translational bioinformatics and biostatistics methods development for analysis of medical data.

Questions? Please call the Biomedical Informatics Department at 631-638-2590.