New Technology

**AI is Here & is Your Friend: What Machine Learning Can Do For You in your ED**

*Faculty: Maame Yaa "Maya" Yiadom, MD*

Medicine has one of the largest data sets of any domain. There is already significant advances in machine learning that can have real impact on our patients in the emergency department. This course will be a primer in machine learning, computer vision, & serve to ignite a fire in you for what is possible.

- Identify terms & concepts relevant to machine learning & AI lexicon.
- Translate abstract AI concepts into actionable ED projects.
- Describe a non-biased introduction to companies emergency physicians could interact with to bring AI technology into their EDs.

**Big Data: Information Archeology**

*Faculty: Joel C. Park, MD, FACEP*

EHRs have revolutionized the way information has been gathered and how care is delivered. A plethora of data is now available and with the increasing popularity of data science and machine learning, there is much excitement about making a meaningful impact in the healthcare sector. Executing complex algorithms and high-level computing with healthcare data has many challenges and many of the difficulties are due to the data itself. The presenter will discuss what "Big Data" means in the healthcare world and how its application can help the emergency medicine physician practicing in a dynamic and chaotic clinical environment.

- Demonstrate how big data is constructed and extracted in the context of a healthcare system.
- Discuss the differences between structured, semi-structured, and unstructured data.
- Explore the different tools used to extract insight to the emergency medicine physician using case studies.

**Coming to a Shop Near You - The Latest & Greatest in ED Technology: FAST FACTS**

*Faculty: Joshua S. Broder, MD, FACEP; Nikita Joshi, MD; Haney Mallemat, MD*

Stay ahead of the game to learn new technology coming to an ED shop near you. This session will include six mini-lectures in one hour discussing new tools & tech within emergency medicine, topics to include airway, ultrasound, digital health, software, diagnostic, & other equipment to modernize your practice.

- Identify new technology is available within emergency medicine in the realms of ultrasound, airway, critical care.
- Describe the utility of rapid diagnostic tools that are currently available.
- Explain the benefit of using new versus currently available tools.
- Discuss software and connected devices that will benefit you while working in the ED.
From Facebook to Infamous: Social Media Horror Stories and How to Avoid Them

Faculty: Warren Wiechmann, MD

Social media is a large part of our daily lives. Having a public presence while maintaining the professionalism expected of a physician is tricky but essential to a long-term career. The speaker will review several cases of social media posts in healthcare gone wrong, the subtleties of what should and should not be posted, and best practices for social media use for the modern physician.

- Describe several cases of physician social media posts that resulted in disciplinary action.
- Discuss subtle cases where HIPAA or professionalism may be compromised by social media.
- Discuss best practices for social media use for modern physicians.

Navigating Bias, Uncertainty, and Privacy in the age of AI: Unintended Consequences: ACEP Connect

Faculty: Nicholas G. Genes, MD, FACEP; Joel C. Park, MD, FACEP; Warren Wiechmann, MD

With unprecedented growth and interest in machine learning and artificial intelligence in medicine, it’s hard to separate hype from reality. While designed for their benefits, these technologies may have unintended consequences for patients, perpetuate biases, or even limit access to care. They may also reduce physicians’ job satisfaction, make some clinicians obsolete, hoard data, limit interoperability, and violate privacy boundaries. The presenters will have an open discussion of the both the promises as well as the perils of AI applications in EM and they will illuminate ways that we can address these issues as a community and orient future research and practice innovation to limit any unintended consequences.

- Inform participants about the current ethical issues facing clinicians in the setting of artificial intelligence.
- Engage participants in discussing how to address these challenges and limit unintended consequences to patients and providers.
- Reflect on the scope of AI in emergency practice and ways in which it can open opportunities or present roadblocks to the growth of our field.

Telemedicine: Which Side of the Camera are You On?

Faculty: Meeta P. Shah, MD

The utilization of telemedicine tools has become increasingly common as access to care continues to remain a challenge in many areas of the country. Subspecialty care, like neurology and pediatrics, can now be delivered remotely to help expedite management. While seemingly a win-win opportunity, there are still challenges inherent on both sides of the video screen. The presenter will discuss the potential benefits and pitfalls of using Telemedicine for both those who are in front of the patient and those at the consult site.

- Describe the clinical scenarios where Telemedicine is currently being utilized and the evidence for it.
- Discuss how to avoid the potential problems of using telemedicine for your patients.
- Discuss how to avoid the potential problems of delivering care in the virtual and remote environment.
There’s an App for That! Phone Apps You Should Know About

Faculty: Nikita Joshi, MD

Access to information on cell phones & other devices has exploded in the past decade, & some applications are more useful than others. The presenter will review the most useful application for the busy practitioner in day-to-day practice, giving specific examples that are available at low or no cost.

- Review some popular apps that are currently available and beneficial for the practicing EP.
- Review some popular apps that can be used to aid in patient care.