

Artificial Intelligence in Neurosurgery: A Practical Course

Course Description:

This course will provide neurosurgeons, junior academic faculty, and residents with real world examples and guidance on how artificial intelligence (AI) can be used to make neurosurgical practice better for neurosurgeons and their patients. The course aims to help clinicians understand how to incorporate AI tools into their clinical practice and to critically evaluate models for their transparency, reliability, and efficacy.

Learning Objectives:

Upon completion of this course, participants will be able to:

- 1. Recognize and potentially utilize Artificial Intelligence models that may help address common neurosurgical clinical questions.
- 2. Determine how one may create and deploy Artificial Intelligence models in neurosurgical practice.
- 3. Evaluate what makes a given Artificial Intelligence model reliable and efficacious.
- 4. Assess various datasets and tools that can lower the barrier to entry for developing and using artificial intelligence.

ACCME Accreditation Statement

The Congress of Neurological Surgeons is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

AMA Credit Designation Statement

The Congress of Neurological Surgeons designates this [activity format] for a maximum of 4.25 *AMA PRA Category 1 Credit(s)* TM . Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Reviewers: Akash Patel

Planners: Rui Feng, Eric Oermann

Faculty: Anton Alyakin, Vivek Buch, Rui Feng, David Kurland, Eric Oermann, Karl Sangwon

AGENDA All times are listed in Central Time **Saturday, May 31, 2025 Time Topic** Speaker 9:00-9:15 am Welcome & Introduction Rui Feng How to Practically Access Al Technologies in Your Eric Oermann 9:15-10:00 am Practice How Can We Build Foundation Models with 10:00-10:45 am Neurosurgical Data Anton Alyakin BREAK 10:45-11:00 am Pearls and Pitfalls of Language Models in 11:00-11:45 am Healthcare Karl Sangwon Bringing Neurosurgical Al Into the Operating Room 11:45 am-12:30 pm Vivek Buch 12:30-12:45 pm **BREAK** 12:45-1:30 pm How to Go from Zero to One as an Al Developer **David Kurland**

Rui Feng

Agenda and faculty subject to change

Wrap-up

1:30-1:45 pm