

## **Supplemental Digital Content**

### Search strategy

#### PUBMED

("deep learning"[MeSH] OR "deep learning"[tiab] OR "deep-learning"[tiab] OR "deep neural network\*"[tiab] OR "convolutional neural network\*"[tiab] OR "recurrent neural network\*"[tiab] OR "LSTM"[tiab] OR "long short-term memory"[tiab] OR "long short term memory"[tiab] OR "autoencoder"[tiab] OR "convnet"[tiab] OR "generative model"[tiab] OR "generative adversarial net\*"[tiab] OR "diffusion model\*"[tiab] OR "transformer"[tiab])

AND

("brain neoplasms"[MeSH] OR "central nervous system neoplasms"[MeSH] OR "brain neoplasm\*"[tiab] OR "brain tumor\*"[tiab] OR "brain tumour\*"[tiab] OR "glioma\*"[tiab] OR "astrocytoma\*"[tiab] OR "ependymoma\*"[tiab] OR "medulloblastoma\*"[tiab] OR "primitive neuroectodermal tumor\*"[tiab] OR "primitive neuroectodermal tumour\*"[tiab] OR "craniopharyngioma\*"[tiab] OR "meningioma\*"[tiab])

AND

("diagnostic imaging"[MeSH] OR "radiograph\*"[tiab] OR "xray\*"[tiab] OR "x-ray\*"[tiab] OR "computed tomogra\*"[tiab] OR "mri"[tiab] OR "magnetic resonance\*"[tiab] OR "ultraso\*"[tiab] OR "positron emission tomogra\*"[tiab])

AND

("predict\*"[tiab] OR "prognos\*"[tiab] OR "risk\*"[tiab] OR "outcome\*"[tiab] OR "complication\*"[tiab])

#### EMBASE

("deep learning"/exp OR "deep learning":ti,ab OR "deep-learning":ti,ab OR "deep neural network\*":ti,ab OR "convolutional neural network\*":ti,ab OR "recurrent neural network\*":ti,ab OR "LSTM":ti,ab OR "long short-term memory":ti,ab OR "long short term memory":ti,ab OR "autoencoder":ti,ab OR "convnet":ti,ab OR "generative model":ti,ab OR "generative adversarial net\*":ti,ab OR "diffusion model\*":ti,ab OR "transformer":ti,ab)

AND

("central nervous system cancer"/exp OR "brain neoplasm\*":ti,ab OR "brain tumor\*":ti,ab OR "brain tumour\*":ti,ab OR "glioma\*":ti,ab OR "astrocytoma\*":ti,ab OR "ependymoma\*":ti,ab OR "medulloblastoma\*":ti,ab OR "primitive neuroectodermal tumor\*":ti,ab OR "primitive neuroectodermal tumour\*":ti,ab OR "craniopharyngioma\*":ti,ab OR "meningioma\*":ti,ab)

AND

("radiodiagnosis"/exp OR "radiograph\*":ti,ab OR "xray\*":ti,ab OR "x-ray\*":ti,ab OR "computed tomogra\*":ti,ab OR "mri":ti,ab OR "magnetic resonance\*":ti,ab OR "ultraso\*":ti,ab OR "positron emission tomogra\*":ti,ab)

AND

("predict\*":ti,ab OR "prognos\*":ti,ab OR "risk\*":ti,ab OR "outcome\*":ti,ab OR "complication\*":ti,ab)

## SCOPUS

(TITLE-ABS-KEY ("deep learning" OR "deep-learning" OR "deep neural network\*" OR "convolutional neural network\*" OR "recurrent neural network\*" OR "LSTM" OR "long short-term memory" OR "long short term memory" OR "autoencoder" OR "convnet" OR "generative model" OR "generative adversarial net\*" OR "diffusion model\*" OR "transformer"))

AND

(TITLE-ABS-KEY ("central nervous system cancer" OR "brain neoplasm\*" OR "brain tumor\*" OR "brain tumour\*" OR "glioma\*" OR "astrocytoma\*" OR "ependymoma\*" OR "medulloblastoma\*" OR "primitive neuroectodermal tumor\*" OR "primitive neuroectodermal tumour\*" OR "craniopharyngioma\*" OR "meningioma\*"))

AND

(TITLE-ABS-KEY ("radiograph\*" OR "xray\*" OR "x-ray\*" OR "computed tomogra\*" OR "mri" OR "magnetic resonance\*" OR "ultraso\*" OR "positron emission tomogra\*"))

AND

(TITLE-ABS-KEY ("predict\*" OR "prognos\*" OR "risk\*" OR "outcome\*" OR "complication\*"))