Sage Hahn

Data Scientist and Developer

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EXPERIENCE

GARAVAN NEUROIMAGING LAB | RESEARCHER
Jan 2019 – Current | Burlington, VT

- → Developed machine learning algorithms to analyze high dimensional human neuroimaging data.
- → Mentored new scientists in software engineering and applied machine learning.
- → Employed methods from time-series and network analysis to solve novel research problems.
- → Performed analysis within cloud-based computing environments to handle large dataset specific issues.
- → Participated in local, regional, and international collaborations with other active scientists, resulting in 20+ publications.

UNIVERSITY OF VERMONT MEDICAL CENTER | MACHINE LEARNING ENGINEER
May 2018 – Jan 2019 | Burlington, VT

- → Implemented state-of-the-art computer vision algorithms for specialized medical diagnostic systems.
- → Collaborated with experts across disparate specialities which resulted in publications and a patent.
- → Deployed a novel semi-automated and sparsely labelled deep learning system to build high quality medical training datasets.
- → Employed NLP tools to process and label patient medical records.

SELFIECAUSE | SOFTWARE ENGINEER
Jan 2018 – May 2018 | Burlington, VT

- → Integrated database functionality to existing iOS mobile applications.
- → Wrote data scraping tools to construct company specific datasets.

SOFTWARE

BRAIN PREDICTABILITY TOOLBOX | PYTHON, JAVASCRIPT
2019-2022

- → Wrote and maintained a python package for performing machine learning on neuroimaging data.
- → Provided both a developer API and a no-code docker-based GUI interface based on Javascript, Apache, Docker, PHP and Bootstrap.
- → Followed best practices with respect to version control, continuous integration testing, and tutorial-style documentation.

GENERALIZED 3D DIAGNOSTIC FRAMEWORK | PYTHON, TENSORFLOW
2018-2019

- → Developed a deep learning framework for localization, segmentation and prediction tasks on 3D medical images.
- → Won first place in the 6th UVM CS Fair.

EDUCATION

UNIVERSITY OF VERMONT
PH.D. IN COMPLEX SYSTEMS & DATA SCIENCE
Jan 2019 - Oct 2022 | Burlington, VT
Complex Systems Center

UNIVERSITY OF VERMONT
BACHELOR'S IN COMPUTER SCIENCE
Sept 2013 - May 2018 | Burlington, VT
School of Arts and Sciences
CS Senior Award - 2018

SKILLS

OVERVIEW

- Machine Learning
- Computer Vision
- Software Engineering
- Data Wrangling & Viz
- Statistics

PROGRAMMING

(In order of proficiency)
Python • Bash • JavaScript • C++ • SQL • HTML • CSS • Matlab • R • PHP • Java

FRAMEWORKS/TOOLS

- Numpy, SciPy, Matplotlib
- Scikit-Learn, Pandas
- Tensorflow, PyTorch
- Linux, Ubuntu, Docker
- Git, Github Actions
- Slurm, AWS, Compilers

COMMUNICATION

- English (native)
- Mandarin (intermediate)
- Spanish (beginner)