Ashwin Sakhare

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https://arsakhar.github.io

PROFESSIONAL SUMMARY

Data Scientist with 5+ years' experience in neuroimaging, software development, and conducting clinical trials. Experience with statistical data analysis and applications of ML algorithms to medical imaging.

WORK EXPERIENCE

Associate Clinical Data Scientist
Mar. 2021-Present
University of Southern California
Cambridge, MA

- Design and conduct clinical studies, analyze data, and manage IRB related regulatory documentation
- Perform exploratory data analysis and data wrangling for algorithm development and performance reporting
- Collect, clean and curate imaging data and clinical meta data

Research Engineer
Mar. 2021-Present
University of Southern California
Los Angeles, CA

- Program gameplay and game mechanics for virtual reality games in Unity3D.
- Develop registration/login system; build backend SQL database for querying and storing game data.
- Program real-time serial and UDP data communication between game and hardware peripherals.

PhD Researcher
Aug. 2015-May 2021
University of Southern California
Los Angeles

- Conducted a 2-year clinical trial assessing impact of cognitive stimulation and exercise in VR on brain health in older adults.
- Utilized multi-modal MRI imaging techniques to detect early neural dysfunction in older adults at risk for Alzheimer's disease.

Systems Engineer
Jul. 2011-Jun. 2015
LipoScience
Raleigh, NC

- Managed electrical, mechanical, and fluidic design changes to Vantera, an FDA-cleared clinical blood analyzer.
- Performed root-cause investigations to troubleshoot failures, reducing downtime and improving sample throughput.

RELATED PROJECTS

Deep Learning in MRI
Feb. 2020-July. 2020

- Implemented a convolutional neural network (CNN) for predicting meningioma consistency (grade 0-3) on MRI scans.

MRI Image Processing Software
Apr. 2020-Oct. 2020

- Built an interactive Python GUI application for visualizing 15+ cerebral flow measurements associated with brain health.
- Developed an MRI image processing algorithm for manually segmenting anatomical regions of interest (ROI).

EDUCATION

University of Southern California
Doctor of Philosophy
Biomedical Engineering
Aug. 2015-Mar. 2021
Los Angeles, CA

University of Southern California
Master of Science
Biomedical Engineering
Aug. 2015-May. 2017
Los Angeles, CA

North Carolina State University
Bachelor of Science
Biomedical Engineering
Aug. 2005-Dec. 2009
Raleigh, NC

SKILLS

Python
C#
SPSS
SQL
Unity3D

RELEVANT COURSEWORK

Applied Statistical Data Analysis
Machine Learning for Data Science