

Ashwin Sakhare

Neuroengineer

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Summary

Neuroengineer with an extensive background in medical research, cognitive neuroscience, and neuroimaging. I have a passion for solving clinical problems through product development and actionable insights derived from data-driven approaches.

Education

University of Southern California <i>PhD, Biomedical Engineering</i> Relevant Coursework: Machine Learning, Applied Statistical Data Analysis	May 2017 – Present <i>Los Angeles, CA</i>
University of Southern California <i>M.S., Biomedical Engineering</i> Relevant Coursework: Clinical Medicine, Pathophysiology of Nervous System	Aug. 2015 – May 2017 <i>Los Angeles, CA</i>
North Carolina State University <i>B.S., Biomedical Engineering</i>	Aug. 2005 – Dec. 2009 <i>Raleigh, NC</i>

Relevant Experience

Doctoral Student <i>Stevens Neuroimaging and Informatics Institute</i> <ul style="list-style-type: none">Validated the reliability of an MRI sequence to be used as a biomarker for brain health.Developed a neuroimaging analysis tool to assess cerebral flow dynamics in the brain.Developed a novel, immersive virtual reality game to remediate cognitive decline in older adults at risk for Alzheimer's disease.Designed and manufactured a custom stationary exercise bike for older adults.Utilized deep learning CNN models to classify meningiomas tumors on MRI.	May 2017 – Present <i>Los Angeles, CA</i>
Systems Engineer <i>LipoScience</i> <ul style="list-style-type: none">Managed design changes to Vantera, an FDA-cleared clinical blood analyzer, reducing downtime and improving sample throughput.	July 2011 – June 2015 <i>Winston-Salem, NC</i>
Research Assistant <i>Cell Mechanics Research Laboratory</i> <ul style="list-style-type: none">Developed a clamping mechanism to affix cell scaffolds in a bioreactor, allowing for the study of cells under cyclical tensile loads.	Nov. 2008 – Dec. 2009 <i>Raleigh, NC</i>
Research Assistant <i>Electro-Mechanics Research Laboratory</i> <ul style="list-style-type: none">Enhanced the design of a Kerrison Rongeur, a Laminectomy surgical instrument, to allow for the secure collection of bone chips, reducing procedural times and improving patient outcomes.	Aug. 2007 – Dec. 2009 <i>Raleigh, NC</i>
R&D Engineer Intern <i>Cook Medical</i> <ul style="list-style-type: none">Developed a novel locking mechanism for an endoscopic tissue fixation device, preventing premature deployment of a tissue anchor, reducing procedural times and the risk of contamination.	May 2008 – Aug. 2008 <i>Winston-Salem, NC</i>

Select Publications

Sakhare, AR; Barisano G., Pa J., *Assessing test-retest reliability of phase contrast MRI for measuring cerebrospinal and cerebral blood flow dynamics.* Magn Reson Med. 2019; 82:658–670.

Sakhare, AR; Yang V., Stradford J., Tsang I., Ravichandran R., Pa J., *Cycling and Spatial Navigation in an Enriched, Immersive 3D Virtual Park Environment: A Feasibility Study in Younger and Older Adults.* Front. Aging Neurosci. 2019; 218.

Core Skills		Technical Skills	
Virtual Reality	●●●●●	C#	●●●●●
Neuroimaging	●●●●●	Python	●●●●●
Clinical Research	●●●●●	SQL	●●●●●
Machine Learning	●●●●●	Unity3D	●●●●●
Data Science	●●●●●	SAS	●●●●●