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| **Sheena Sharma, PhD** |  |

San Francisco Bay Area ⦁ 773-726-2902 ⦁ <https://about.me/sheenas> ⦁ https://github.com/sheenstar/ ⦁ [sharmasheena@gmail.com](mailto:ssharma@u.northwestern.edu)

**SKILLS**

* *Programming Languages:* Python, SQL, MATLAB
* *Tools:* Scikit-Learn, Pandas, Numpy, MatplotLib, Seaborn, git, MySQL, Flask, Bootstrap, AWS

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**WORK EXPERIENCE**

**Fellow, Insight Data Science (San Francisco, CA) Jan 2017-Present**

* Created and deployed a web-app for insurance companies that predicts hospital readmission rates and describes important features for hospital readmission by state: www.predictingreadmissions.com
* Collected and wrangled 6 unique datasets with 60+ features
* Trained and validated a random forest regressor model using Pandas and Scikit-learn

**Postdoctoral Research Fellow,** Auckland University of Technology, New Zealand **April 2016-Oct 2016**

* Independently analyzed a variety of brain scans collected through various techniques (magnetic resonance imaging (MRI), functional MRI, diffusion weighted imaging, and magnetic resonance spectroscopy) to better understand neural changes in chronic pain patients
* Developed reproducible code pipelines to analyze over 200gb of imaging data
* Created and delivered tutorials to colleagues on neuroimaging analysis techniques

**Sourcing Manager**-Science Exchange (Palo Alto, CA) **May 2015-Mar 2016**

* Built a recommendation system in python using user purchase history from a MySQL database to better inform customer purchases
* Routinely presented data presentations to the executive team in order to inform business and marketing decisions
* Provided scientific consulting to researchers to help inform the scope of work across many experiment types, ranging from in vivo studies to multi-session clinical trials

**Graduate Student Researcher**-Northwestern University (Evanston, IL) **June 2008-June 2015**

* Jointly setup a new laboratory of $100,000 including purchasing, setting up, and validating technical equipment
* Routinely carried out statistical techniques including Analysis of variance and principal components analysis on large data sets and brain scans using self-written scripts in MATLAB and other similar programming languages
* Served as a teaching assistant for several graduate and undergraduate level classes in biomechanics and neuroanatomy

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**VOLUNTEER EXPERIENCE**

**Gavel Club (Toastmasters) Volunteer**, Auckland, NZ. **July 2014 – Dec 2014**

* Delivered one-on-one speech support for patients with Aphasia (Speech disabilities due to stroke)
* Planned and developed market strategy for annual fundraising event

**Science Club Mentor,** Northwestern University,Evanston, IL. **Aug 2010-Aug 2011**

* Ran weekly basic science labs for underprivileged middle school students
* Jointly designed and taught basic science projects

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**EDUCATION**

**PhD**, Neuroscience Northwestern University, Evanston, IL **June 2015**

* Thesis Title: Gait Initiation After Stroke: A Biomechanical and Neurophysiological Approach

**BA,** International Studies and Biology, The University of Chicago, Chicago, IL **June 2008**

**PUBLICATIONS/TALKS / POSTER PRESENTATIONS**

1. Sharma S, Lewis, G, Rice DA, McNair P. “Neurophysiological and biomechanical changes during gait initiation in chronic stroke patients.” September 2016 (upcoming). *Invited Talk*. University of Technology, Sydney, Australia.
2. Sharma S, Lewis, G, Rice DA, McNair P. “White matter changes in chronic pain.” August 2016. *Invited Talk.* Australasian Winter Conference on Brain Research, Queenstown, New Zealand.
3. Sharma S, McMorland AJC, and Stinear JW. “Mediolateral and Anterior Ground Reaction Forces During Gait Initiation in Chronic Stroke.” 2014. *Poster*. Australasian Winter Conference on Brain Research, Queenstown, New Zealand.
4. Sharma S, and Stinear, JW, “Using Non Invasive Brain Stimulation to Modulate Anticipatory Postural Adjustments in Chronic Stroke.” July 2012. *Poster*. International Society of Electrophysiology and Kinesiology, Brisbane, Australia.
5. Sharma S, McMorland AJ, Stinear JW. Stance limb ground reaction forces in high functioning stroke and healthy subjects during gait initiation. *Clin Biomech.* 2015;30(7):689-95.
6. Sharma, S, McMorland, AJC, Stinear, JW. Erector Spinae Activity Relates to Lateral Ground Reaction Forces During Gait Initiation After Stroke *(accepted with revisions at Clinical Neurophysiology).*
7. Steinle, JJ, Sharma, S, Smith, CP, McFadyen-Ketchum, LS, “Normal Aging Involves Modulation of Specific Inflammatory Markers in the Rat Retina and Choroid”, J Gerontol. 2009;64A(3):325-331.
8. Steinle, JJ, Sharma, S, and Chin, VC, “Normal Aging Involves Altered Expression of Growth Factors in the Rat”, *The* J Gerontol. 2008;63(2):135-40.
9. Smith, CP, Sharma, S, Steinle, JJ, “Age-related Changes in Sympathetic Neurotransmission in Rat Retina and Choroid”, *Exp Eye Res*. 2007;84(1):75-81.