

# Subhodeep Moitra

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Email : [smoitra@cs.cmu.edu](mailto:smoitra@cs.cmu.edu)

Website: [www.cs.cmu.edu/~subhodee](http://www.cs.cmu.edu/~subhodee)

**EDUCATION**

**Carnegie Mellon University, Pittsburgh, PA**  
PhD in Language Technologies, School of Computer Science (2011-current)  
*Thesis Area:* Feature Learning and Graphical Models for Protein Sequences  
[www.cs.cmu.edu/~subhodee/thesis/proposal.pdf](http://www.cs.cmu.edu/~subhodee/thesis/proposal.pdf)  
*Advisor:* Dr Christopher James Langmead

**Carnegie Mellon University, Pittsburgh, PA**  
MS in Language Technologies, School of Computer Science (2009-2011)

**National Institute of Technology, Trichy, India**  
BTech in Computer Science (2005-2009)

**SKILLS**

*Languages:* C, Java, Python, R, Matlab  
*Operating Systems:* Windows, \*NIX platforms

**LINKS**

**GitHub** - [github.com/smoitra87](https://github.com/smoitra87)  
**Website** - [www.cs.cmu.edu/~subhodee](http://www.cs.cmu.edu/~subhodee)

**EXPERIENCE**

**Google, Mountain View, CA** Summer 2014  
*Software Engineering Intern*  
Worked in the Google Genomics team to develop an open source Java tool for detecting de novo variants in a family trio upon the Google Genomics API  
[www.github.com/googlegenomics/denovo-variant-caller-java](https://www.github.com/googlegenomics/denovo-variant-caller-java)

**Microsoft Research, Bellevue, WA** Fall 2011  
*Researcher*  
Worked with Bing Document Understanding Team to help improve search ranking results using Topic Models. Focus was on scaling up using Map-Reduce.

**Institut National de Recherche, Rennes, France** Summer 2008  
*Research Programmer*  
Implemented Statistical algorithms for damage detection in civil structures in Scilab. Dealt with optimal sensor placement for monitoring structural health of buildings.

**PUBLICATIONS**

S. Moitra, K. Tirupula, J. Klein-Seetharaman and C.J. Langmead "A minimal ligand binding pocket within a network of correlated mutations identified by multiple sequence and structural analysis of G protein coupled receptors"- *BMC Biophysics* 2012, 5:13

S. Moitra, N. Yanamala, O. Tastan, I. Singh, C. J. Langmead and J. Klein-Seetharaman "Analogies between Structural and Systems Biology and Systems Engineering in Dynamic Environments"- *IEEE SoSE 2010 Conference on System of Systems, UK*

N.S. Razavian, S. Moitra, H. Kamisetty, A. Ramanathan, C.J. Langmead - "Time-Varying Gaussian Graphical Models of Molecular Dynamics Data"- *Proceedings of 3DSIG 2010 Structural Bioinformatics and Computational Biophysics, Boston, USA*

**LANGUAGES**

English, Hindi, Bengali, Tamil, French (Beginner), German (Beginner), Spanish (Beginner)