# Jing Liu

Contact
INFORMATION

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## Work Experiments

• Consultant in Lanxian Studio, Part-time

September 2009 – June 2010

• Project Online office system, Part-time

March 2009 – August 2009

# RESEARCH INTERESTS

I have a very broad interests in computer aided life science, biology and physics. Currently, I am focus on X-ray single-particle imaging, including 3D molecular structure reconstruction, diffraction pattern recognition, etc. In addition, I am interested in high performance computing, image analysis, and machine learning.

### **PUBLICATIONS**

- Engblom, S. & Liu, J. (2014). X-ray laser imaging of biomolecules using multiple GPUs. In: Parallel Processing and Applied Mathematics: Part I. Paper presented at PPAM 2013 (pp. 480-489). Berlin: Springer-Verlag
- Ekeberg, T. & Engblom, S. & Liu, J. (2015). Machine learning for ultrafast X-ray diffraction patterns on large-scale GPU clusters. In: Journal of International Journal of High Performance Computing Applications (pp. 29:233-243). SAGE Publications.

## TEACHING EXPERIENCE

Programming of Parallel Computers, 2014 Programming of Parallel Computers, 2015 Programming of Parallel Computers 2016

### **EDUCATION**

### Uppsala University, Uppsala, Sweden

- Ph.D. candidate, Biophysics, Expected: Autumn 2017
  - Thesis Topic: Parallel algorithms in imaging of biomolecules with X-ray lasers
- M.S., Computer science, September 2012
  - Topic: Implementation of a Semi-automatic Tool for Analysis of TEM Images of Kidney Samples

## Harbin Institute of Technology, Harbin, China

- B.Eng Software Engineer, June 2010
  - Thesis Topic: Large-scale network events simulations using NS2

#### OTHER ACTIVITY

• Organizing Complex System Working lunch seminar

September 2013 – Present

• Collaboration Research at Osaka University

March 2015 October, 2015

• Local organizer of CIM Workshop on Machine Learning

#### Free Software

- OpenMPI examples, available at MPI\_DEMO
- FXI 3D reconstruction package using multiple GPUs, available at FXIhub/emc