# Zhuowei Cai

### Education

07/2013-Present Visiting Student, Institute of Advanced Integration Technology, Cooperated by CHINESE

ACADEMY OF SCIENCES and THE CHINESE UNIVERSITY OF HONG KONG.

Supervisor: Yu Qiao LINK

09/2009–07/2013 Bachelor of Science, Department of Mathematics, Zhejiang University.

Thesis Supervisor: Jianlan Wu LINK

Academic Standing

Overall GPA 91.36/100, 190.5 credits Rank 1st out of 60 in Applied Mathematics

Major GPA 95.20/100, 77 credits Rank 1st out of 120 in the Department of Mathematics

# Research Experience

07/2013—Present Research Assistant, *Multimedia Laboratory*, Institute of Advanced Integration Technology, CHINESE ACADEMY OF SCIENCES and THE CHINESE UNIVERSITY OF HONG KONG.

o Implemented Vision Classification System with Product Quantization

 Improve Subspace Decomposition in Product Quantization for Vision Classification and Image Retrieval task

05/2012–07/2013 Research Assistant, Bio-X Lab, Department of Physics, Zhejiang University.

• Improved and Implemented Super-resolution Optical Fluctuation Imaging (SOFI) algorithm for the use of Microscopic Image Resolution Enhancement

 Probed the Effect of Urea Concentration on the Aggregation Behavior of Type II Diabetes related NFGAIL Peptides using Molecular Dynamics Simulation

#### Awards

2010-2012 National Student Scholarship (TOP 1% STUDENTS, HIGHEST STUDENT AWARD IN CHINA)

2009-2012 Outstanding Students Scholarship (Top 5% Students in Zhejiang University)

2011 The Second Prize, College Physics Competition, Zhejiang University

2011 The Third Prize, College Student C Programming Competition, ZHEJIANG UNIVERSITY

## Languages

Native Mandarin/Cantonese

Fluent English TOFEL 111/120, Speaking 23/30

Intermediate Japanese JLPT N2, Reading 60/60

#### Publications

COMPUTATIONAL BIOLOGY (ON TYPE II DIABETES)

2013 Effect of Urea Concentration on Aggregation of Amyloidogenic Hexapeptides (NFGAIL), Submitted to The Journal of Physical Chemistry, B part (IF=3.607)

2012 Molecular Mechanism of the Early Stage of Amyloidogenic Hexapeptides (NFGAIL) Aggregation, **Accepted** by Communications in Theoretical Physics (IF=0.954)