Chuanlong (Ben) Du

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Summary of Qualifications:

➢ Motivated, Diligent and hardworking person well trained in computer science, statistics and math.

➢ Demonstrated extensive experience in algorithms, data structures, parallel computing, object-oriented programming, Linux, data mining/machining learning, etc.

➢ Versatile wit with exceptional knowledge in Java, C/C++, Python, Ruby, SQL, VB.net, JavaScript, etc.

Education:

➢ PhD, Statistics, **Iowa State University** (ISU)   Expected June 2013

➢ BS, Statistics, **University of Science and Technology of China**   June 2008

Projects:

Implementation of Statistical Methods in C++

➢ Implemented carefully designed high performance **template** classes for adaptive rejection sampling; the implementation is much faster than the R package "ars" which is implemented in C.

➢ Implemented **template** classes for sequential permutation test which takes advantage of **parallel** computing; developed the R package "dclong.spt" wrapping the C++ code.

Intelligent Email System

➢ Developed a broad scope email-based-applications system in MS Access using VBA.

➢ Functions of the system includes: contacts database; holiday, birthday and agenda reminder; borrowing and lending system; English (extensible to other languages) words and phrases learning; general purpose email parser, e.g., automatically download students' homework for printing.

➢ All applications in this system are highly interactive via email.

➢ The system greatly simplifies daily work and improves work efficiency.

Java Mail APIs Wrapper for R

➢ Developed the R package "dclong.jmail" wrapping Java Mail APIs; achieved good balance between usability and consistency with original API structures.

➢ The package brings great convenience to R users who have to deal with emails in R.

Learning Software for MS Office 2007 (part-time job)

➢ Develop learning software for MS Office 2007 in VB.net in 2008.

➢ The learning software was very helpful for people that were uncomfortable with great changes of MS Office 2007 compared to MS Office 2003.

Teaching Experience:

➢ Acted as teaching assistant and lab assistant for several graduate level courses including Statistical Methods, Advanced Probability Theory, Advanced Statistical Inference and Bayesian analysis.

➢ Stimulated students' interests; cultivated and enhanced their understanding in statistical concepts.

➢ Tutored a student during summer 2009 on probability theory; improved and expedited her study.

Selected Publications:

➢ T. Bancroft, **C. Du** and D. Nettleton (2013). Estimation of False Discovery Rate Using Sequential Permutation p-Values. Biometrics. doi: 10.1111/j.1541-0420.2012.01825.x

➢ E. M. Takacs, J. Li, **C. Du**, L. Ponnala, D. Janick-Buckner, J. Yu, G. J. Muehlbauer, P. S. Schnable, M. C.P. Timmermans, Q. Sun, D. Nettleton and M. J. Scanlon. Ontogeny of the Maize Shoot Apical

Meristem. *The Plant Cell Online, Am Soc Plant Biol*, 2012, 24, 3219-3234.

➢ *C. Du*, S. Vardeman and D. Nordman (2013). One-Sample Bayes Inference for a New Class of Distributions on Equivalence Classes of 3-D Orientations Defined by Crystallographic Symmetries. Technometrics, tentatively accepted.

➢ *C. Du* (2012). A Series of Stationary and Ergodic Markov Chains Defined on Partitions with Applications in Bayesian Clustering. (submitted to Bayesian Analysis)

➢ *C. Du* (2013). A Method for Identifying Grains in EBSD Scans of Material Specimens Using Spatially Informed Clustering of 3-D Orientations. (working)

Extracurricular Activities:

➢ Organized Career Day 2012 for the Dept. of Statistics and the Dept. of Math at ISU.

➢ Lunched a software learning group and taught R, MATLAB and Mathematica to members.

➢ Revitalized the mailing list of CSSA in Ames and maintained it for 2 years.

➢ Initiated an "English Only" campaign among international students in the Dept. of Statistics at ISU.