GE GAO

Department of Computer Science
University of Virginia
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OBJECTIVE

To apply for a full-time position as Software Engineer in Test.
Area of expertise: Software Engineering, Data Mining.

EDUCATION

University of Virginia, Charlottesville, VA — Currently Enrolled
Ph.D. program in Computer Science - GPA 3.9/4.0. Advisor: Dr. Kevin Sullivan

Zhejiang University, Hangzhou, China — Sep. 2006 ~ Jun. 2008
M.S. program in Computer Science

Zhejiang University, Hangzhou, China — Sep. 2002 ~ Jun. 2006
B.S. program in Computer Science - GPA 90/100

PROJECT EXPERIENCE

✓ **Software Engineering**

Oct.10-Present **Social Decision Networks in Software Engineering**
Software Engineering Group, University of Virginia, Charlottesville, VA
- Proposed and developed a model of Social Decision Networks(SDNs) which formalizes how people in social networks perform collaborative decision making in software development.
- Developed a Web 2.0 based tool to support distributed social construction SDNs and infer the coordination requirements in the social networks for software quality improvement.
- Part of IBM Open Collaborative Research program
- Technology used: RESTful web service, Javascript+Ajax(Dojo), Comet, Non-SQL database

May.10-Aug.10 **Supporting Enterprise Stakeholders' Collaboration using Decision Space**
Internship at IBM T.J. Watson Research Center, Hawthorne, NY
- Designed and prototyped a framework that provides supports for enterprise stakeholders' collaboration in software development process in the ontology of decision space.
- Technology used: Restlet, Javascript+Ajax(Dojo), J2EE

May.09-May.10 **Grounding the Concept of Socio-Technical Congruence in a Decision-Based Ontology**
Software Engineering Group, University of Virginia, Charlottesville, VA
- Developed and recast theories of Socio-Technical Congruence of software ecosystems in terms of design decisions and dependencies.
- Based on the STC theories, developed collaboration analytics on top of IBM Rationale Jazz platform.
- Technology used: IBM Rational Jazz development platform, Eclipse Plug-in Development, Eclipse Modeling Framework

- ✓ **Wireless Sensor Network**

  Dec.08-May.09 **Wireless Sensors based Load Monitoring and Energy Conservation**
  Wireless Sensor Network Group, University of Virginia, Charlottesville, VA
  - Proposed a wireless sensors based framework which monitors and reduces residential energy expenditure by monitoring and predicting occupancy patterns.
  - Technology used: Matlab, data mining

- ✓ **Data Mining**

  Sep.06-Jun.08 **Motion Time Series Classification**
  Database Lab, Zhejiang University, China
  - Proposed a Classification Model for Multivariate Motion time series, with application of machine learning methodologies to feature extraction, dimension subset ranking & selection and model training; conducted experiments to demonstrate model performance and compare with conventional techniques.
  - Technology used: Decision Tree, Neural Networks, Numerical Analysis

- ✓ **Select Course Projects**

  - *Software Engineering.* Developed an Android application that allows mobile phone users to participate in Weichi contest on KGS Go server and is able to provide move recommendation intelligently.
  - *Computer Architecture*. Simulated Simultaneous Multithreading Processor using SimpleScalar.
  - *Operating System*. Designed an algorithm to optimize Linux scheduling to reduce cache coldness on multi-core systems.
  - *Compilers.* Designed and developed a BDC compiler with using Lex and Yacc.

PUBLICATIONS

Ge Gao, Kevin Sullivan. "Social Decision Networks in Software Engineering". 34th International Conference on Software Engineering. Zurich, Switzerland. (under review)

Ge Gao, Kamin Whitehouse. "The Self-Programming Thermostat: Optimizing Setback Schedules based on Home Occupancy Patterns". First ACM Workshop On Embedded Sensing Systems For Energy-Efficiency In Buildings (BuildSys '09), held in conjunction with ACM SenSys. Berkeley, CA, Nov. 2009.

Lidan Shou, **Ge Gao**, Gang Chen, Jinxiang Dong. "Classifying Motion Time Series Using Neural Networks". 7th IEEE Pacific Rim Conference on Multimedia (PCM 2006)

PROFESSIONAL SKILLS

C/C++(6+years), Java(5+years), HTML, CSS, Javascript; experienced in RESTful web service, Ajax toolkit, J2EE, Android application development, Eclipse plug-in development, UML and Matlab; programming on Unix/Linux; familiar with data mining and machine learning techniques.

TEACHING EXPERENCE

TA, University of Virginia
- Discrete Mathematics. Course discussion, student communication, evaluation. *Autumn 2008*
- Theory of Computation. Project design, student communication, evaluation. *Spring 2009*