GE GAO

Department of Computer Science
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OBJECTIVE

To apply for a full-time position as Software Engineer
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

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 **Decider: Modeling Software Social Decision Space**
Software Engineering Group, University of Virginia, Charlottesville, VA
- Proposed and implemented Software Social Decision Space to model software development process and prescribe people's collaboration and coordination requirements around software development. The theory and framework is targeted at improving software development performance by providing the information in the right form to the right person at the right time.
- Part of IBM Open Collaborative Research program
- Technology used: Restlet, Javascript+Ajax(Dojo), Comet, J2EE

May.10-Aug.10 **Supporting Multiple Stakeholders' Collaboration using Decision Space**
Internship at IBM T.J. Watson Research Center, New York, NY
- Designed and prototyped a framework that provides supports for multiple stakeholders' collaboration in software development process in the ontology of decision space.
- Technology used: RESTful web service, 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 theory to formally redefine Socio-Technical Congruence in software development process by means of the notion of design decisions; prototyped to measure and analyze how effectively people in software development teams coordinate and communicate with each other based on the model.
- Technology used: IBM Rational Jazz development platform, Eclipse Plug-in Development, Eclipse Modeling Framework

➢ **Wireless Sensor Network**

Dec.08-May.09 **Sieve: Simple Event Classification for Wireless Sensor Networks**
Wireless Sensor Network Group, University of Virginia, Charlottesville, VA
- Built Sieve, one embedded system that uses unsupervised learning technique to automatically identify recurring events in sensor streams, providing tunable parameters so as to allow developers to quickly design classifiers and increase system's scalability to multiple deployment scenarios.
- Technology used: Matlab

➢ **Data Mining**

May.07-Jun.08 **Classifying Multivariate Motion Time Series**
Database Lab, Zhejiang University, China
- Proposed a Classification Model for Multivariate Motion time series, with certain machine learning methodologies optimized for Multivariate Motion time series including series segmentation, dimension subset ranking & selection, feature extraction, model training; conducted experiments to demonstrate model performance and compare with conventional techniques.
- Technology used: Decision Tree, Numerical Analysis

Sep.06-May.07 **Classifying Univariate Time Series Using Neural Networks**
Database Lab, Zhejiang University, China
- Proposed a univariate motion time series classification model based on two types of Neural Networks and feature extraction techniques; implemented one demo system to evaluate its performance.
- Technology used: Neural Networks, Numerical Analysis

➢ **Select Projects in M.S. Program**

- *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, 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*