Eric Liu

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Career Objective

To seek a position in which I can apply and develop my software design and engineering skills, so as to contribute to the success of a viable establishment.

Key Strengths

- I can learn, improvise, and adapt quickly to the changing needs of an environment to get the job done
- Very strong communication, software design and development skills
- Work well as an individual or as part of a team, taking a leadership role if necessary
- Responsible, professional, reliable, and highly organized

Special Skills

Extensive Development Experience:

- Java, JavaSpaces, JUnit, RMI, Swing
- JavaCC, JJTree
- Scripting (Unix command line tools, awk, sh, HTML, JavaScript)

Design Experience:

- Design Patterns and Refactoring
- UML
- OO Software Metrics
- Software Architectures

Other Technical Experience:

- C/C++, Assembly (ADSP 21061, ADSP 2181, 68K), JPython
- Working knowledge of digital communication systems
- Domain analysis
- Basic project management
- Ability to give concise and engaging presentations

Secondary Languages: Chinese (Cantonese and Mandarin), basic Japanese

Work Experience

University of Calgary: Full-Time Graduate Studies (May 1998 – December 2000)

- Involved in software metrics and modeling projects with industry (Nortel WDC, Veritas Seismic, CDL)
- Design (architecture, OO) and development of research projects
 - WebMetrics: A software metric analysis and collection system experimenting with the idea of software service rental over the web; development of a parser for ANSI/ISO C++
 - Holmes: A distributed system (using JavaSpaces and a blackboard architecture) to intelligently support Sherlock, a domain analysis methodology
- Development of course material and helping undergraduate students with software engineering, processor architecture, project management, and C++ programming
- Performed system administration tasks involving NT, CVS, and Netscape Enterprise

Sunterra Marketplace (May – August 1997)

- Set-up and maintained a POS system (NT server, six Win95 workstations)
- Troubleshot workstation problems
- Created queries and reports in MS Access
- Developed modem download scripts
- Created labels from POS database using Insignia Stylus application

Sunterra Quality Food Markets (July – Aug 1994, May – Aug 1995, May – Aug 1996)

- Developed awk and sh scripts to format sales data for transmission
- Built 20/20 spreadsheets and programmed complex macros
- Troubleshot SCO Unix terminal and modem problems
- Helped with accounts receivable and other office tasks

Education

MSc in Software Engineering (Department of Electrical and Computer Engineering)

December 2000 – University of Calgary, Canada

Thesis: "Proposal for a Software Metrics-Based Critiquing System"

Province of Alberta Graduate Scholarship

BSc in Electrical Engineering, Minor in Computer Engineering 1998 – University of Calgary, Canada

Graduating Year GPA: 3.71 / 4.00 (with Distinction)

Publications

Succi, G., C. Bonamico, L. Benedicenti, E. Liu, T. Vernazza, R. Wong (2001). "Supporting Electronic Commerce of Software Products through Pay-Per-Use Rental of Downloadable Tools", chapter 18 in *Internet Commerce and Software Agents: Cases, Technologies and Opportunities* (Rahman, S.M. and R.J. Bignall editors), IDEA Group Publishing

- Succi, G., J. Yip, E. Liu (2000). "Analysis of the Essential Requirements for a Domain Analysis Tool", *Software Product Line Workshop of the 22*nd *International Conference on Software Engineering* (ICSE 2000), Limerick, Ireland
- Succi, G., J. Yip, E. Liu (2000). "Holmes: A System to Support Software Product Lines", Research Exhibition Track of the 22nd International Conference on Software Engineering (ICSE 2000), Limerick, Ireland
- Succi, G., R. Wong, E. Liu, M. Smith (2000). "Supporting Dynamic Composition of Components", *Research Exhibition Track of the 22nd International Conference on Software Engineering* (ICSE 2000), Limerick, Ireland
- Succi, G. and E. Liu (1999). "A Relations-Based Approach for Simplifying Metrics Extraction", *Applied Computing Review* **7**(3), ACM Press
- Curry, W., G. Succi, M. Smith, E. Liu, R. Wong (1999). "Empirical Analysis of the Correlation between Amount-of-Reuse Metrics in the C Programming Language", *ACM Symposium on Software Reusability* (SSR), Los Angeles
- Succi, G., R. Wong, E. Liu, C. Bonamico, T. Vernazza (1999). "An Architecture for Supporting 'Pay-per-use' Downloadable Systems based on Java 2 and JavaSpaces", Workshop on Software Engineering over the Internet of the 21st International Conference on Software Engineering (ICSE), Los Angeles
- Spasojevic, R., G. Succi, E. Liu (1999). "Virtual Lab for Software Engineering Education", *Technical Report SELabsTR99001*, Department of Electrical and Computer Engineering, University of Calgary

Graduate-Level Courses

- Advanced Object-Oriented Systems
- Software Production Engineering Economics
- Small Software Project Development (Part I)
- Domain Analysis and Engineering
- Software Engineering over the Internet
- Software Metrics
- Software Reliability and Testing
- Requirements Engineering
- Managing the Software Lifecycle
- Research Seminar

Research

- OO Design Metrics
- Refactoring
- eXtreme Programming
- Distributed System Architectures
- Software Product Lines
- Design Critiquing Systems

Interests and Activities

Reading, snowboarding, rock-climbing, badminton, cycling, weight training

References

- Dr. Giancarlo Succi, Adjunct Professor at the University of Calgary, (780) 492-7228
- Dr. Mike Smith, Professor at the University of Calgary, (403) 220-6142
- Mr. Glen Price, President of Sunterra Quality Food Markets, (403) 266-2820