

BRADLEY A. MOMBERGER

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Objective To provide hands on leadership over the entire software engineering process, in a company that strives to set the bar across its respective industry for stable, maintainable, and usable data management applications.

Summary Meticulous developer and project manager for data-intensive software applications. Solo development of applications exceeding 2500 lines of code, contribution to multiple large-scale applications of up to 175,000+ lines of code. End-to-end involvement in the software engineering process for producing applications to meet all explicit and implicit client needs.

Recent Accomplishments

Relevant Software Projects

Designed and implemented the SPREADFIRE system, which allowed new flexibility in fine-grained parallel execution across networked data stream monitors.

Pioneered out-of-band command messages inside Distributed CAPE's streaming data structure.

Designed, implemented, and administered database and Web applications around client needs, including document storage, content management, customer relations, and communications.

Implemented graphical rendering engines – boundary model, arbitrary view, Phong reflectivity.

Designed and implemented simple printer-ready blogging, several MediaWiki customizations, and a Flash/PHP hybrid artistic project.

Developed Web-enabled strategy games, football pool managers, and arcade-style games.

Conferences, demos, and papers

Demonstrated the Distributed CAPE system at the 2004 Conference on Very Large Databases

Wrote the demonstration slides and talk for Distributed CAPE at VLDB 2005

Contributed to two CRI proposals with the NSF, one of which yielded \$100,000 in grants

Helpful Skills

Developed in C, C++, Java, PHP, VB. Expertise in Scheme, SQL, XQuery, HTML, XML, TeX.

Highly effective procedural debugging skills, especially within GDB and Eclipse.

Comfortable with all major business data interchange software, commercial and open source.

Experienced with most graphics and publishing software.

Professional Experience

Developer, Distributed CAPE Project, Worcester Polytechnic Institute, Worcester, MA *2004-present*

Teaching Assistant, Worcester Polytechnic Institute, Worcester, MA *2004-2005*

Taught Programming Language Concepts, Social Implications of Information Technology,

Introduction to Program Design, Software Engineering, and Human-Computer Interaction.

Lead Project Developer, BlueRiver Systems, Worcester, MA *2003*

Intern, QED Imaging, Inc., Pittsburgh, Pennsylvania *2001*

Education

Worcester Polytechnic Institute (WPI), Worcester, Massachusetts *2003-2006*

MS in Computer Science *expected Summer 2006*

Thesis title: Balancing Memory Load in Distributed CAPE Using the SPREADFIRE

Replication-Style Distributed Partitioning System

University of Maryland Baltimore County (UMBC), Baltimore, Maryland *1998-2002*

BA in Visual Arts – Imaging/Digital Arts, minor in Computer Science