

Mike Brady

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Profile

Strong history leading advanced software development projects from inception to successful completion. Extremely strong experience developing cutting edge Java applications.

- Led team that developed world's first robot to sort and pack surgical instruments
- Chief engineer for pioneering web personalization tool
- Delivered Space Shuttle cargo planning software to NASA ahead of schedule and under budget
- Presented technology and brokered strategic partnerships with executive management at companies like 3M, Boeing, AOL, Adept Inc., and Getinge USA
- Ran an academic AI lab
- Developed first robot to assist in a surgical procedure as a scrub technician
- Extensive media interviews and coverage, including cover story in NY Times Science section and several internationally syndicated technology television programs
- Inventor of full-featured object-oriented language called bagel
- Holder of several technology patents
- Given NASA's SFA award for "significant contribution to the human space flight program"

Experience

Lead Technologist – RST – New York, NY – www.roboticsystech.com 2001 to present

Leader of development team creating PenelopeCS™, a first-in-class robot designed to work in the sterile supply department of hospitals. Sterile supply is responsible for cleaning, sorting, packing, and sterilizing surgical instruments used in the OR. PenelopeCS applies advanced robotics and artificial intelligence technologies to sterile supply to increase efficiency, reduce errors, enhance inventory control, and reduce costs.

Managed product development from opportunity, stakeholder, and customer face analysis; through requirements development, design, prototyping, and implementation; to a field-tested saleable product. Completely hands-on in every technical aspect of this entirely novel invention. Instrumental in the architecture, design, and development of the system software – an extensively multi-threaded, real-time application with asynchronous components for machine vision, robot control, user and maintenance GUIs, and a goal-based AI command and control module for business logic.

Responsible for all aspects of project management, including scheduling, task allocation, budgeting, PR, and documentation. Helped broker a technology licensing agreement with 3M. Represented company in local, national, and international media coverage including print and television interviews for the New York Times, the Discovery Channel, The Washington Post, BusinessWeek TV, Reuters, and EuroNews. Wrote proposals, secured, and administered 7 government grants and contracts from DARPA, the NIH, and the NSF totaling \$1.5M.

Senior Developer – Thinkmap – New York, NY – www.thinkmap.com 2000 to 2001

Thinkmap is a novel way of visualizing and exploring information as an animated interactive network of data entities. Senior designer and developer for both Thinkmap Studio, a Swing-based standalone authoring tool used to create Thinkmaps, and the Thinkmap Application Server, a J2EE Servlet (WebLogic, WebSphere, Apache Tomcat). Involved in all aspects of the Thinkmap product, including Swing development, a custom class loader for encrypted Java class files, a suite of server administration tools, thread management, JDBC components, a tamperproof signed properties file facility, server scalability testing and performance tuning, a product key scheme, XML parsing/generation, an IDE-style classpath

capability, Ant-based product build scripts, very efficient font and color caches, and Javadoc/doclet development.

Head of Engineering – YouPowered Inc. – New York, NY

1997 to 2000

Led team of 9 developers creating a pioneering Java-based intelligent web personalization agent called Orby. Designed the multi-tier architecture with a client-side, opt-in agent maintaining a freeform knowledge-base modeling all aspects of a user's on-line behavior. The application tier was based on Apache/Tomcat/JSP, and the backend used JDBC/Oracle. Author of OrbySpeak, a full-featured scripting language for communicating with and manipulating the agents. Developed the OrbySDK allowing third-party developers to create OrbySpeak apps to extend the agent.

Helped build company from 3 employees to over 30, responsible for shepherding company's core competency in web personalization technology. Managed 3 person QA team and oversaw product verification and validation. Responsible for building the team, scheduling, employee reviews, and mentoring. Taught advanced Java course development team.

Advanced Computing Technologist – Boeing , AI Group – Huntsville, AL

1991 to 1997

Team lead and primary developer for the Cargo Planning, Analysis, and Configuration System (CPACS). CPACS is a Common Lisp application used to configure cargo for space shuttle resupply flights to and from the International Space Station. Users interact with GUIs or select fully automated packing algorithms to lay out all cargo for the flight. The goal is to pack as much cargo as possible while obeying a wide variety of physical, proximity, and safety constraints.

Primary software designer and developer. Led a team of 5 programmers throughout the project lifecycle from requirements definition to delivery. Responsible for object-oriented design, GUI, packing algorithms, constraint checking, and database interface. CPACS was the first software package completed by Boeing for the Space Station program. It was delivered ahead of schedule and under budget.

Applied various AI search techniques to the constrained 3D packing problem, ultimately settling on a greedy pack algorithm with multiple competing heuristic sorting strategies. Met our requirement to out-perform human packers by accommodating more cargo from a test manifest.

Education

BS, Computer Science Engineering, Vanderbilt University
BS, Mathematics, Vanderbilt University

Skills

All things Java – J2EE – Agile/SCRUM – LAMP – C++ – Javascript – UNIX/OSX/Windows – SaaS – Very strong object-oriented design – multi-threading – UI/UX design/development – making code run fast – Swing – HTML/CSS – AJAX – JSP – Spring/Hibernate – ANT – Lisp – AI – Servlets – Very strong writing and presentation skills – Desktop publishing/Photoshop/Illustrator – Web design