

## **ABOUT US**

Peach Mountain Computing has the experience to tackle your challenges.

The Principals of Peach Mountain Computing each have more than 20 years of experience in developing systems and software products. We share a common philosophy: quality, results, with no surprises. Our expertise spans real-time applications, graphical user interface design and development, documentation, database design, project management and technical problem solving.

We also can tap into other resources if the situation demands. We have access to an extensive network of experienced, proven professionals, who can be trusted to get your job done, on time, and to your satisfaction.

## **WHAT WE DO**

Peach Mountain Computing specializes in contract software development. We can join a project at any stage of development, from initial project specification, to implementation, to modifications and enhancements of existing programs. We are happy to assume full project responsibility, or to work as part of an existing team. Regardless of our role, our goal is to deliver robust, well-documented software that our clients can maintain with or without future assistance from Peach Mountain Computing.

Although Peach Mountain Computing can provide a wide variety of services, our emphasis is solving your difficult problems using our senior development and management resources. Our special skills and years of experience allow us to:

- turn around failing projects
- re-architect and redesign programs and products that have outgrown their foundations
- help your team review technical design at critical stages during the development process
- fill in when a key developer leaves at an inopportune time
- help set the strategic technical direction for evolving products
- assess software development organizations and processes, recommending improvements
- help establish sound development processes
- solve difficult system interaction problems, including finding those “elusive” bugs
- provide mentoring for young managers

We can be especially helpful to companies who need senior talent on an occasional basis, but who cannot afford to have senior people permanently on staff. Our organization can help you through a crisis, but we encourage long-term part-time relationships, where we can help your organization grow and help you prevent the next crisis.

## **ABOUT THE PARTNERS**

The Principals of Peach Mountain Computing have spent many years working for many of the high technology companies in the Ann Arbor area. The list of companies includes: ABN Amro, ARAS, Applied Intelligent Systems, ArborText, Bio-Image, Genomic Solutions, Holland Systems, InterFirst, LI-COR, MedStat, Motorola, Siemens, SHSM, Solution Point, Sycor, Terumo, University of Michigan, Unisys and Visteon. At various times, the partners have worked as programmers, system designers and architects, and as managers up to the executive level.

The Principals have developed operating systems, real-time systems, embedded systems, software configuration management systems, web applications, clinical medical devices 510(k), materials handling systems, DNA analysis and sequencing systems, factory automation systems, telecommunications software in a variety of protocols, and hardware interfaces, as well as more traditional database applications, information and management systems. The partners are familiar with a wide variety of languages, tools and development platforms, from assembly languages to C++, C#, ASP.NET and Java to database systems. The partners also have significant experience developing software for the international market and working with offshore developers and distributors.

We are experienced in a wide variety of software disciplines, business areas, and tools:

| <b>Software Disciplines</b>               | <b>Business Areas</b>       | <b>Tools</b>                                                  |
|-------------------------------------------|-----------------------------|---------------------------------------------------------------|
| database                                  | AP/QP                       | Visual Studio .NET (C#, VB.NET, ASP.NET)                      |
| operating systems                         | financial/accounting        | Visual Basic, C++                                             |
| client/server                             | materials handling          | SQL Server, Oracle, Access                                    |
| GUI design                                | document management         | MySQL                                                         |
| telecommunications/<br>networking         | small government operations | wide variety of assembly<br>languages                         |
| real time applications                    | medical instrumentation     | J2EE, Java, JavaScript, JSP,                                  |
|                                           | 510(k) process              | PHP, ASP                                                      |
| project management                        | manufacturing               | Tomcat, Turbine, Velocity                                     |
| web applications                          | factory automation          | HTML, CSS, FrontPage                                          |
| software integration                      | test instrumentation        | SGML, XML, XSL, XSLT                                          |
| requirement analysis                      | DNA sequencing              | Portal development                                            |
| object oriented design and<br>development | ISO / QS-9000               | Windows 95/98/NT, UNIX,<br>QNX, MacOS X, real-time<br>systems |

Whatever your software development needs, Peach Mountain Computing can help you meet your deadlines and deliver quality software to your customers.

## **WHY YOU SHOULD CHOOSE US**

Peach Mountain Computing is more than a contract programming shop. In addition to programming itself, we can help you in all phases of a project. Our breadth of experience makes us particularly valuable in projects that require integrating existing systems with each other or with newly developed systems. We not only help you implement software, we can help you design it or we can help you improve the design of existing software.

## BACKGROUND

Paul Berneis is one of the founders of Huron Valley Software Consulting, LLC. He has thirty years of experience designing, implementing, and managing the development of software products and custom applications. He has developed software for database systems, distributed applications, telecommunications, EIS/DSS, financial systems, operating systems, and machine control systems. He has:

- Managed groups of up to 35 developers, including some hardware design, and worked with overseas development groups.
- Additional expertise in product planning, customer support, and localizing software for international (including Asian) markets.
- Reputation for taking over projects in trouble and making them successful.
- Up-to-date technical skills, including: client/server, relational database, object oriented, GUI design, Visual C++/Basic, etc.
- Experience with a wide variety of platforms (personal computers to mainframe, LAN, WAN, etc.) using a wide variety of programming languages (from assembler to 4GL) and development tools

## PROJECT HIGHLIGHTS

- Chief architect for an emergency vehicle control system to integrate warning lights, two-way radios, video, radar, etc.
- Assisted IT department of a large corporation to recover from an offshore project that went out of control.
- Developed a documentation authoring and management tool for automotive quality documents, to meet the QS-9000 APQP requirements.
- Developed a compiler to take a flowchart description of a factory process and produce assembly-level code to run the process from a PC acting as a PLC.
- Developed and promoted common architecture for the five main product lines of an EIS/DSS software company.
- Worked with a Big 6 consulting company in a joint venture to design a business intelligence system. Completed the initial design and turned product over to development group for implementation.
- Assumed responsibility for a LAN-based document distribution system product, a three-year old project still in the high-level design phase. Redirected the project to use Lotus Notes, cutting schedule from 30 months to 12 months and reducing the staff needed by two-thirds.
- Managed the conversion of an American, OS/2-based, EIS product to support Japanese, Korean, and Chinese using resources provided by a Japanese reseller. The American company received the Japanese "Software Product of the Year" award as a direct result, at the time one of only six non-Japanese companies ever to receive the award.

- Developed TCP/IP protocol suite and Novell low-level protocol stacks for a PBX/data networking system. TCP/IP suite installed at customer site for three months before first bug was discovered. Also supported and enhanced existing LAN redirector protocols and services, ASCII access methods, 3270 terminal emulation, and X.3 PAD
- Developed X.500-like directory system for electronic mail and phone services
- Developed high performance ISA and Micro Channel bus adapter cards for proprietary LAN (both hardware design and software drivers). Briefly a member of IEEE 802.9 subcommittee.
- Developed one of the first executive information systems, on distributed IBM PCs and mainframes.
- Developed a time-series data management and statistical analysis system
- Developed a graphic output system for database, analysis, and financial modeling systems
- Assumed responsibility for \$1 million custom hardware/software contract when manager left and customer threatened to sue for non-performance. Turned situation around so that customer was later used as a reference account.
- Developed major components of timesharing operating system, including file access, scheduling, error recovery, etc.

## **EDUCATION**

1973            M.S. in Computer Science  
UNIVERSITY OF MICHIGAN, Ann Arbor, Michigan

1969            B.S. in Computer Science and Mathematics  
UNIVERSITY OF MICHIGAN, Ann Arbor, Michigan

## **U.S. PATENTS**

6,928,350        Control console for an automobile  
6,865,460        Communication network for an automobile  
6,838,858        Power management system and method for an automobile

## **CONTACT**

Paul A. Berneis  
734-426-2159  
9775 W. Huron River Dr.  
Dexter, MI 48130  
pberneis@peachmountaincomputing.com

## BACKGROUND

Mary is the former VP Product Development of two software companies, former Operations Manager for a systems development company, former Senior Product Manager for a software company. She is an expert at unsnarling problems with technical and organizational components and as both a project and people manager.

## PROJECT HIGHLIGHTS

- QA project management for a software driven heart-lung machine – no in-house software staff
- Project management during the final stages of an automated court recording and transcription product
- Developed and implemented of design and development processes
- Introduced, documented, and trained software developers on the use of a development process
- Built relationships with the various Strategic Business Units to coordinate integration with business systems
- Promoted and implemented the design and development of an overall architecture for the Information Systems group.
- Responsible for the successful implementation of a web-based application for brokers
- Coordinated the team consisting of business "owners", software developers, documentation, training, QA, and infrastructure personnel (about 20 people)
- Incorporated the use of productivity tools
- Helped keep the focus on the end customer (the mortgage broker)
- Assisted in general business issues
- Introduced general processes.
- Helped develop corporate direction
- Customer research
- Wrote product requirements documents
- Coordinated product implementation phase with software development, documentation, training course development, consulting, QA, and marketing communications.
- Planned and managed the beta program testing phase.
- Coordinated product releases
- Worked with key customers and prospects on critical sales
- Gave product demos and presentations
- Instructed classes in math, applications software, and computer architecture

- Managed a group of 150 software developers
- Progressed through all the technical levels from programmer trainee to technical manager

### **COMMUNITY LEADERSHIP**

The Nature Conservancy: 1984 - present (former Board Member of the Michigan Chapter, Secretary, Vice President - 1990 – 1993).

Stephen Leader – (1991-present) train people how to support other people in times of crisis

Extreme Programming Local Users Group

### **EDUCATION**

1996-1999 M.A. in Mathematics – (ALMOST - one class short)  
EASTERN MICHIGAN UNIVERSITY, Ypsilanti, Michigan

1993-1995 Secondary School Provisional Certification - received August 1995  
EASTERN MICHIGAN UNIVERSITY, Ypsilanti, Michigan

1975-1977 UNIVERSITY OF MICHIGAN, Ann Arbor, Michigan  
(completed 30 hours toward the 60-hour MBA degree)

1963-1965 B.A. in Mathematics  
UNIVERSITY OF MICHIGAN, Ann Arbor, Michigan

1962-1963 OBERLIN COLLEGE, Oberlin, Ohio (Mathematics)

### **CONTACT**

Mary S. Danforth  
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Ann Arbor, MI 48103  
mdanforth@peachmountaincomputing.com

## BACKGROUND

Katherine Koehler has built a solid reputation is a 20 year veteran in Business Analysis, Software Architecture and Software Development with a focus on providing a high quality, open source and iterative development process. She has consulted companies in a wide variety of industries with extensive experience in Accounting, Manufacturing, Health Care and Banking.

Demonstrated success leading teams in all aspects of the software development process, including Business Analysis, Alternative Analysis, Software Architecting, Software Development and Software Quality, Katherine has built a solid reputation in software development and process design.

She has held a variety of Business Analysis and Technical Software Lead positions at Texas Instruments, National Instruments, Continuum, ProQuest, Accenture (HAP) and CCI (ABN-AMRO).

She has a unique combination of Computer Information Systems and Accounting with degrees in both from Ferris State University. In addition she holds a CPA license. She maintains her high level of performance and skills through continuing education in both the accounting and computer sciences to keep abreast of the latest technologies.

## PROJECT HIGHLIGHTS

- Business Analysis, requirements, design and coding of application used in Auto Industry for Certification. Technologies used J2EE/Java, Oracle 10g Portal, Discoverer, Open source (Hibernate, Struts), Portlets.
- Designed and developed Mortgage Web Application in Java (Tomcat, Turbine, Velocity, Eclipse, Oracle, Torque, MySQL) for a website that provides detailed internal tracking for mortgage document quality assurance.
- Designed, developed and coded with team Trials Web Application in Java, JSP, Postgresql and Tomcat for sales representatives to manage customers and leads.
- Designing and developing a Pre-natal/Post-natal Web Application written in Java, Tomcat Struts and mysql for use by hospitals and clinics.
- Designed and developed PHP/Smarty and Mysql application to track and solicit individuals to contribute.
- Wrote code for Web Server application that tracks Nursing quizzes in Oracle/SQL Server, ASP.net.
- Designed, developed and coded Mortgage Broker Web Applications written in Java, Struts, Openldap, XML, Tomcat, Business Rules (Drools) and Apache/Linux integrated with POINT client Mortgage software.

- Designed Java Swing platform independent prototype application for telnet connection and graphing of data from device via Ethernet based on user requirements.
- Developed and developed Health Insurance Member Eligibility and Claim Status Web Applications using Java/J2EE, JSP and iPlanet for Consumers and Health Providers. Developed Unit Test standards using Junit and Mercury's Loadrunner.
- Developed and developed Mortgage applications for processing Loan Registrations, Funding and Security via Web using UML, Java, Oracle Forms, PL/SQL and Oracle Web Server.
- Designed and developed Web interface using C/CGI monitoring Unix systems and applications.
- Developed middle-tier software written in C and Document Search Web Application written in C++.
- Gathered requirements, designed and developed Customer Service and Repairs for Computer Manufacturing utilizing Oracle Forms, PL/SQL and Oracle Web Server.
- Designed and Developed client/server software written in C for Telecom company to manage call flow and monitor hardware, software and T1 Connections.
- Requirement Analysis, design and developed software using Cobol, JCL, DB2, DL1 and Mark IV for Computer Manufacturer's Cost Accounting, Financial, Labor, Sales, Marketing, Manufacturing, Bill of Material, General Ledger Systems and Disaster Recovery.

### RELATED STUDIES

Ms. Koehler has received numerous training over her 20 years from Oracle and Sun Microsystems.

Certified Public Accountant since 1993.

### EDUCATION

Ms. Koehler received a Bachelor's in Computer Information Systems from **Ferris State University** in November 2004.

Ms. Koehler received a Bachelor's in Accountancy from **Ferris State University** in November 2004.

### CONTACT

Katherine M. Koehler  
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## BACKGROUND

Jon Hawthorne is the founder of Hawthorne Software Engineering, LLC. He has over twenty years of experience architecting, designing, implementing, and leading the development of software products and custom applications. He has developed software for medical imaging, medical instrumentation, data management systems, simulation, document processing, bio-informatics and web based applications.

## PROJECT HIGHLIGHTS

- Architected multiple device data collection for medical instruments used in heart bypass surgery in C#.
- Architected a BioAPI based 3-D facial recognition system that captures, stores and verifies 3-D facial recognition data. Specified and developed the device XML interface and created the BioAPI Service Provider. Provided detailed documented for the architecture and BioAPI Service Provider. Produced all deliverables on or before scheduled date.
- Developed a database translation for the Jackson Intermediate School District to convert State of Michigan MEAP data into a data warehouse format using XML, XSL and XSLT.
- Developed a patient database application using Dot Net Nuke in VB.NET.
- Contributed to the architectural definition of a web based ASP.NET medical reporting database. Developed report web pages in C# using Infragistics controls.
- Designed and developed DNA sequencing, 2-D electrophoresis, and other general purpose microbiology analysis applications using Java and Swing.
- Designed and developed DNA sequencer control interface using Java and XML that allows access to the instrument via an HTTP connection.
- Developed image analysis algorithms to locate and quantify feature in microbiology imaging applications.
- Designed and developed web based ASP student database and course registration applications for the Jackson County ISD.
- Designed and implemented a multithreaded Windows DLL that acquired data from medical instruments via serial connections and provided the data using a standard API to a Visual Basic data management application. The design was created to allow the user to change data collection parameters without having to rebuild the application.
- Designed and developed text composition algorithms based on user configurable formatting specifications (style sheets for SGML) for UNIX and Windows platforms.
- Developed and supports a distributed data management system that provides medical instrumentation data and billing information to hospital information systems.
- Specified requirements, functionality and design for two method verification software products used by clinical specialists and sales representatives to evaluate and document the performance of blood analyzers. The products perform statistical analysis and generate reports based on hospital and government procedures.

- Created extensive test facilities for the validation of a configurable communication system developed to transfer results from blood analyzers to hospital information and billing systems. Wrote a detailed test plan used to validate the software.
- Designed, tested and supported the compilers and utilities of a real-time simulation language used to model aerodynamics, fluid flow, and other continuous systems. Performed product specification, project planning, scheduling and team management.
- Developed and specified the requirements for a general-purpose biomedical image analysis software product. Reviewed market analysis data, evaluated competitive software functionality and surveyed existing and potential customers. Wrote the strategic project plan describing the market need, phased development and incremental release strategy for the software product.
- Constructed a surface mount device circuit board inspection system. Provided client support, functionality definition, procurement of inspection system components and development of image recognition/placement algorithms.
- Designed and implemented image display functions that enhanced the computer tomography (CT) scanner by providing expanded image processing and image evaluation capabilities.
- Supported seven x-ray generator control circuit boards through the computer aided drafting process. Created and maintained the schematics and test specifications. Built and tested prototype circuit boards and revised circuit designs to improve system calibration and testability. Analyzed product reliability problems and successfully developed engineering solutions that resulted in significant cost reductions and improved X-ray product reliability.

## **PUBLICATIONS**

Hawthorne, J. S., "Edge Enhancement and Detection for Object Recognition in Computerized Tomographic Images", Marquette University, May 1985

## **EDUCATION**

General Electric Edison Engineering Program / Advanced Course in Engineering

1985 M.S. in Electrical Engineering and Computer Science  
MARQUETTE UNIVERSITY, Milwaukee, Wisconsin

1982 B.S. cum laude in Electrical Engineering  
PENNSYLVANIA STATE UNIVERSITY, State College, PA  
(Member of Eta Kappa Nu and Tau Beta Pi while at the Pennsylvania State University)

## **CONTACT**

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Brooklyn, Michigan 49230  
517-592-9006  
jhawthorne@peachmountaincomputing.com

## **BACKGROUND**

Wally specializes in Java development of traditional applications as well as web-based, client server systems. In addition, he has plenty of experience in project and product management, requirements definition, doing GUI prototyping, database design, and object design. He is particularly good at generally sorting out problem situations where the technical problems are not immediately distinguishable from other types of problems, such as people problems.

## **PROJECT HIGHLIGHTS**

- Wrote and debugged business logic in Java (Tomcat, Turbine, Velocity, JBuilder, Oracle, MySQL) for a website that provides detailed internal tracking for mortgage document quality assurance.
- Wrote and debugged server logic in Java (JSP, Tomcat, JBuilder, PostGreSQL) for website controlling accesses to self-conducted product trials of information sources.
- Developed database design for website gathering hospital information for a medical information company(MSSQL)
- Provided suite of Access and VB programs to report on detailed requirements used to assure FDA compliance for a network-architected medical device.
- Wrote and debugged a Java application (using Swing GUI components) which edits, assembles and aligns DNA sequence data.
- Co-Designed hardware and software system (Java GUI) for controlling audio and video switching in a courtroom or conference room environment
- Java application which controls DNA Sequencing instrumentation to produce images and automatically interpret them.
- Java application which extracts quantified information from digital images of various biological separations.
- Developed a Java application which automatically updates a job posting website from a central database.
- Instructor for Windows OS and Java for Programmers at local community college.
- VP, senior technical manager and founder of company producing medical imaging systems for biotech researchers.
- Hired development team and built working prototype image analysis system to inspect production of printed circuit boards.
- Developed software products to implement the database design philosophy for a database design consulting firm.
- Played key role in rescuing a major (> \$1M) contract development project. Project involved business graphics for senior management.
- Defined a 'next generation' product line for a personnel administration project (was early Windows/Oracle product)

- By introducing systematic change control, virtually eliminated that as a common cause of online downtime
- Changed vendor-supplied operating system task scheduler to improve performance and security.

### **RELATED STUDIES**

Specialized Java training - AWT Associates, New York City, New York.

### **EDUCATION**

1971 B.A.  
UNIVERSITY OF MICHIGAN, Ann Arbor, Michigan

### **CONTACT**

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