

J. MATTHEW HUYCK

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EDUCATION

- 8/1991-5/1995 B.S. **Cornell University**, College of Engineering
School of Applied and Engineering Physics (A&EP)
Coursework included advanced physics, advanced mathematics, engineering, laboratory instrumentation, computer hardware interfacing, and computer science.
- Spring, 2003 **Boston University**, School of Public Health
Department of Epidemiology
Epidemiology (EB711)
- Spring, 2003 **Boston University**, School of Public Health
Department of Biostatistics
Biostatistics (EB703)
- Summer, 2003 **Boston University**, School of Public Health
Department of Biostatistics
Applied Linkage Analysis (BS859)

MAJOR INTERESTS

1. Systems Biology, Bioinformatics and Biostatistics
2. Visualization and Information Design
3. Human-Computer Interaction
4. Open Source Software Tools and Development

RESEARCH EXPERIENCE

- 6/2006-present **Harvard Medical School**, Boston, MA
Center for Biomedical Informatics, Computational Biology Initiative
Creating natural language processing tools to extract knowledge from biomedical literature. Responsibilities include evaluating methods and software for an automated text retrieval system, designing and implementing a software architecture to support integration of all system components, creating and enhancing components using Java and database development expertise, and fostering communication among team members at multiple sites by supporting a collaborative online discussion environment.
- 1/2003-5/2006 **Boston University**, Boston, MA
College of Medicine, Genetics Program
Database specialist responsible for performing statistical analysis and creating and maintaining data collection and extraction procedures for MIRAGE (an international, multi-center study into the genetic and environmental causes of Alzheimer Disease) and associated studies.

3/2002-present **Brigham and Women's Hospital/Harvard Medical School**, Boston, MA
Departments of Pathology and of Obstetrics, Gynecology, and Reproductive Biology
Sole technical consultant for the Center for Uterine Fibroids and the "Finding Genes for Fibroids Study," a large international study to identify susceptibility genes for uterine fibroids. I have streamlined, enhanced and linked two databases maintained in Microsoft Access and Excel containing all DNA, contact information and data collection records from over 1500 study participants. I also provide ongoing support for the study's web site and assist with SAS programming.

PROFESSIONAL EXPERIENCE

1/2003-present **SAS and Biostatistics Tutor**
Provide SAS and biostatistics tutoring to area biomedical and public health graduate students.

6/1995-5/2001 **Team Leader and Project Manager**, Internet Consulting
Primix New England Technical, Watertown, MA
As Primix' primary representative to many clients, I led all phases of the development lifecycle: conception, requirements analysis, development, deployment, and maintenance. Projects involved technical development, creative design and business strategy for systems integration and web-based projects. Each new project required adaptability and rapid learning about the client's business. Team size and composition ranged from two or three developers to larger, more diverse teams including business management, software development, graphic design and marketing professionals. All positions involved problem solving, coordinating team interactions, and facilitating client communication. I also planned and implemented project budgets and timelines.

Summer 1994, **Programmer**
Summer 1993 *Cornell University Department of Physics, Ithaca, NY*

11/1992-5/1995 **Student Representative**
Apple Computer, Inc., at Cornell University, Ithaca, NY

HONORS AND AWARDS

2000 **Integrity** culture award granted by Primix Core Values team

1999 **Waters MVP** award granted by Primix teammates

1998 **Team Spirit** award granted by Primix management

3/1994-3/1995 **President**, Cornell Engineering Physics Society

1990 **Finalist**, SuperQuest High School Supercomputing Competition

1990 **Semifinalist**, Westinghouse Science Talent Search

BIBLIOGRAPHY

Journal Publications:

1. Saleh M, Vaillancourt JP, Graham RK, **Huyck M**, Srinivasula SM, Alnemri ES, Steinberg MH, Nolan V, Baldwin CT, Hotchkiss RS, Buchman TG, Zehnbauser BA, Hayden MR, Farrer LA, Roy S, Nicholson DW. Differential modulation of endotoxin responsiveness by human caspase-12 polymorphisms. *Nature*. 429(6987):75-9, 2004.
2. Yip AG, Green RC, **Huyck M**, Cupples LA, Farrer LA; MIRAGE Study Group. Nonsteroidal anti-inflammatory drug use and Alzheimer's disease risk: the MIRAGE Study. *BMC Geriatrics*. 5(1):2, 2005.
3. Erlich PM, Lunetta KL, Cupples LA, **Huyck M**, Green RC, Baldwin CT, Farrer LA; MIRAGE Study Group. Polymorphisms in the PON gene cluster are associated with Alzheimer disease. *Human Molecular Genetics*. 15(1):77-85, 2006.
4. Akomolafe A, Lunetta KL, Erlich PM, Cupples LA, Baldwin CT, **Huyck M**, Green RC, Farrer LA; MIRAGE Study Group. Genetic association between endothelial nitric oxide synthase and Alzheimer disease. *Clinical Genetics*. 70(1):49-56, 2006.

Abstracts:

1. Roth M, **Huyck M**, Green RC: Predictors of Progression through the Recruitment Process, from Questionnaire response to Enrollment, in an Alzheimer's Disease (AD) Primary Prevention Trial. Presented at the Alzheimer's Association International Conference on Prevention of Dementia, Washington, D.C., June 19, 2005.
2. Akomolafe A, Lunetta KL, Erlich PM, Cupples LA, Baldwin CT, **Huyck M**, Green RC, Farrer LA: Genetic Association between endothelial Nitric Oxide Synthase (NOS3) and Alzheimer disease: The MIRAGE Study. Presented at the American Society of Human Genetics Annual Meeting, Salt Lake City, UT, October 28, 2005.
3. Erlich PM, Lunetta KL, Cupples LA, **Huyck M**, Green RC, Baldwin CT, Farrer LA: Polymorphisms in paraoxonase are associated with Alzheimer Disease in African Americans and Caucasians. Presented at the American Society of Human Genetics Annual Meeting, Salt Lake City, UT, October 28, 2005.

LEADERSHIP ROLES

I have over four years of experience as Team Leader, Project Manager or Business Manager on software development projects.

Selected Project Leadership Experience

2/2001-5/2001 **Team Leader**, A.T. Cross e-Commerce Site Enhancements

Tested, redesigned and deployed several enhancements to Cross' production e-Commerce site. As Team Leader, I was responsible for coordinating the efforts of three developers and resolving numerous technical issues.

4/1999-10/1999 **Project Manager**, Waters Corporation e-Commerce Solution

This project created the first e-Commerce venture for Waters, allowing them to sell HPLC columns and accessories online. As Project Manager, I integrated a diverse client team with a diverse project team to produce an e-Commerce application that was seamlessly integrated with Waters' existing web site and order processing infrastructure. I also won final client approval and successfully managed the budget and time lines on this fixed-price, fixed-time engagement.

Selected Business Leadership Experience

- 6/2000-5/2001 **Manager**, Primix New England Technical
Provided mentorship and career guidance for members of the technical group. Performed quarterly checkpoints and annual performance reviews. Made salary, bonus and promotion recommendations.
- 4/2000-5/2000 **Member**, Primix People Management Task Force
Selected by Primix senior management to redesign the management structure for the company's largest department, the technical staff. Produced clearly documented guidelines and recommendations that became the management structure for the entire company.

SOFTWARE DEVELOPMENT SKILLS

- **Statistical Software:** SAS, R, S-Plus
- **Programming and Scripting Languages:** Perl, Java, PHP, C, SQL, Visual Basic, C++, ABAP/4, FORTRAN
- **Operating Systems:** Mac OS (all versions), Windows 98/NT/2000/XP, UNIX (Linux, Darwin, HPUX, AIX)
- **Packages and Development Tools:** Apache; MySQL; gcc; CVS; Microsoft SQL Server, Access, Visual Studio, Visual SourceSafe; SAP R/3's Development Workbench; Documentum 4i content management; Autonomy and Semio knowledge management; SAQQARA ProductServer (formerly StepSearch); MATLAB; OpenDX visualization
- **Other:** HTML; CSS; Visio; Adobe Photoshop, Illustrator, PageMaker; TextMate; BBEdit; Microsoft PowerPoint; WML (Openwave.com); hardware interfacing via the Parallax BASIC Stamp Microcontroller

Selected Software Development Experience

- 8/2000-1/2001 **Team Leader**, Primix, Sales and Marketing Portal Design and Development
Led a cross-disciplinary team of business and technical professionals in designing and documenting a knowledge management portal to allow a manufacturer of information storage systems to communicate with a large and rapidly expanding sales force. The project integrated conflicting requirements from several independent departments and three formerly separate intranet sites. This system serves thousands of employees worldwide.
- 12/1999-6/2000 **Team Leader**, Primix, Rockwell Collins Employee Self-Service Enhancements
Built, tested and deployed enhancements to a complex Employee Self-Service application that supports thousands of Rockwell Collins employees. Worked primarily to improve the employee timecard system and to integrate it with SAP R/3's HR module. Redesigned the integration infrastructure to improve system scalability.
- 1993, 1994
(summers) **Programmer**, Department of Physics, Cornell University
Designed and wrote computer code to perform numerical simulations on the IBM SP1 parallel supercomputer. Experience using PVM and MPI libraries. Attended workshops at the Cornell Theory Center on parallel and performance programming.

PARTICIPATION IN PROFESSIONAL TRAINING AND CONFERENCES

1. **BioIT World**, Boston, MA, March, 2002
2. **O'Reilly Bioinformatics**, Tucson, AZ, January, 2002
3. **Technical Fundamentals for Documentum 4i**, Documentum (Content Management), Hopkinton, MA, October, 2000
4. **Mastering Modern Project Management**, Project Management Partners, Watertown, MA, August, 2000
5. **ACM SIGCHI Conference on Human Factors in Computing Systems**, Los Angeles, CA, April, 1998
6. **Developing Distributed Objects using Orbix**, Semaphore (CORBA), Cambridge, MA, June, 1997
7. **Java for C and C++ Programmers**, Deitel & Associates, Inc., Cambridge, MA, January, 1997
8. **C++ and Object-Oriented Technology**, Deitel & Associates, Inc., Cambridge, MA, September, 1995
9. **ABAP/4 Programming (JSB25)**, SAP America, Inc., Irving, TX, September, 1995
10. **R/3 System Administration I (JSB10)**, SAP America, Inc., Parsippany, NJ, August, 1995