

SUMMARY OF QUALIFICATIONS

- Research experience (academic and industrial r&d): machine learning, predictive modeling, evolutionary computation, nature-inspired optimization, risk management, data mining
- Quantitative financial modeling and investment management. Passed the Series 65, Uniform Investment Advisor Law Exam
- 14 years of business consulting experience, including six years at a “Big 5” firm
- Project management experience (teams of 15+)
- Software development and systems integration (Java, R and S-Plus, C/C++, SQL)
- Enterprise software – certified in Siebel (2 years experience) and SAP Finance (5 years experience)
- 3 years working on foreign assignments (France, Belgium, Mexico, UK)
- Conversant in French

PROFESSIONAL EXPERIENCE

2005 – Pres. Natural Selection Financial, Inc. – Chief Technology Officer

Quantitative Modeling and Financial Research

- Performing research and analysis creating quantitative investment strategies with evolutionary algorithms and computational intelligence techniques. Created profitable models that are currently being used to manage client investments.
- Executing client trades and performance/risk analysis for customer accounts.
- Consultant from 2005 to 2007 providing financial modeling and research.

2005 – Pres. Natural Selection, Inc. – Senior Staff Scientist

Research, Project Management, Business Development

- Conducting applied research in evolutionary computation, adaptive modeling and risk management for commercial and government clients.
- Developing a rules-based risk management system for a multi-year nationwide import safety project.
- Performing statistical analysis and computational intelligence modeling for several professional sports teams.
- Consulting to biotechnology clients for drug discovery and development projects.
- Managing the company’s East Coast presence including project management and business development.

2003 – 2004 Icosystem Corp. – Researcher and Consultant

Research, Consulting, Modeling, Development

- Created and analyzed an agent-based model and visualization tool to simulate web service architectures. Participant in the Open Geospatial Consortium (OGC).
- Researched and developed distributed control algorithms and tools for swarms of autonomous robots. Developed individual robot behaviors that resulted in complex, emergent, and intelligent swarm behaviors. Implementation both in software and on physical robots.
- Created an application that helps a user to interactively evolve new enhancing or artistic filters for digital image processing.
- Researched the use of data sonification for data mining. Created a tool that allows users explore data by listening and interactively evolving audification rules.
- U.S. Provisional Patent Application Ser. No. 60/537,761, filed January 2004, entitled “Interactive evolution methods and systems.”

2002

BTexact Future Technologies Group (Intelligent Systems Lab of British Telecom R&D)

Graduate Research, Ipswich, UK

- Extended a multi-agent platform by developing genetic programming capability for a cross-European project on Decentralized Information Ecosystem Technologies (DIET).
- Created and implemented the cell-based optimization (CBO) algorithm and for resource allocation optimization problems and self-healing systems design.

1999 – 2001 Extraprise, Inc. – Senior Consultant and Project Manager

Project Management, Business Process Design, Data Conversion and Integration, Business Development

- **Duncan-Hurst Capital Management, L.P.:** Designed and coded account data conversions and daily performance interface for a financial asset management company.
- **STAR Telecom:** Implemented Siebel Call Center Telecommunications vertical. Designed and coded the conversion of 35,000 customer accounts.
- **PeopleSupport:** Defined a new business model and product offering for an outsourcing services startup. Managed a 400 user implementation of Siebel and real-time systems interfaces.
- **Quintus:** Managed a Siebel Sales Force Automation project including a national rollout across five cities for 200 remote sales people. Defined sales and service business processes.

1993 – 1999 Accenture (formerly Andersen Consulting) – Manager

Project Management, Business Process Design, Configuration and Development

- **DaimlerChrysler (Detroit, Mexico City):** Managed a team of consultants, accountants and executives to create a new international chart of accounts and financial business processes for the post-merger DaimlerChrysler Corporation. Helped plan and manage the Mexico City pilot-site implementation.
- **General Motors Delphi Automotive (France):** Led all financial and treasury process design, SAP configuration and interface design. Designed and implemented integration between finance and manufacturing, sales, and logistics. Created plans for French, German and Spanish site implementations.
- **Saint-Gobain Vitrage (Belgium):** Responsible for financial and treasury applications for Saint-Gobain Vitrage in Belgium including building an automated banking and reconciliation interface. Worked with clients across Europe to plan a five country rollout.
- Created and led Accenture's Industry Center of Expertise for financial applications in the utilities industry. Worked with SAP North America to define their utilities and telecommunications industries product offering.
- Assisted Accenture Paris in starting an enterprise software solution center in France. Consulted to various European projects including Renault Vehicules Industriels and Disneyland Paris to help with their project planning, design and configuration.
- Conducted SAP training for consultants and clients in Chicago and Veldhoven, the Netherlands.

EDUCATION

MSc Natural Computation with Distinction, December 2002

University of Birmingham, Edgbaston, UK

Graduated First in Class

Bachelor of Science in Applied Science, Systems Analysis, May 1993

Miami University, Oxford, Ohio

PUBLICATIONS

- C. Anderson, J. Rothermich, E. Bonabeau (2005) Modeling, quantifying and testing complex aggregate service chains. *2005 IEEE International Conference on Web Services (ICWS 2005)*.
- J. Rothermich, İ. Ecemiş, P. Gaudiano (2004) Distributed Localization and Mapping with A Robotic Swarm. *Proc. of the Swarm Robotics Workshop at the Eight Int. Conference on the Simulation of Adaptive Behavior SAB-04*, E. Sahin and W. Spears, editors, July 2004, Los Angeles, CA. Lecture Notes in Computer Science (2004).
- S. Malinchik, B. Orme, J. Rothermich, E. Bonabeau (2004) Interactive Exploratory Data Analysis, *Proceedings of the 2004 IEEE Congress on Evolutionary Computation*, IEEE Press, Piscataway, NJ.
- J. Rothermich, F. Wang, J. Miller (2003) Adaptivity in Cell Based Optimization for Information Ecosystems, in *Proceeding of the 2003 Congress on Evolutionary Computation (CEC 2003)*, IEEE Service Center, Piscataway, NJ.
- J. Rothermich (2002) *From Multicellularity to Cell Based Optimization: Studying the Cooperative Capabilities of Evolvable Cells*. MSc Thesis. BTextact. 2002. Poster presented at the UK Workshop on Computational Intelligence (UKCI), 2002. Jointly won best poster prize.
- J. Rothermich (2002) Studying The Emergence of Multicellularity Using Cartesian Genetic Programming in Artificial Life. In *Late-breaking papers of the Genetic and Evolutionary Computation Conference (GECCO 2002)*, New York, July 2002 and peer-reviewed UKCI 2002, Birmingham, UK, September 2002.