

Dale Ian Newfield

US Mail: 4131 N Stratford Rd NE
Atlanta, GA 30342
E-mail: Dale@Newfield.org
Mobile Phone: (202) 607-4492

OBJECTIVE To obtain a position doing interesting work that requires a very broad, always expanding range of knowledge.

EXPERIENCE **INDEPENDENT CONTRACTOR**

Hey Jerry Brands LLC

August 2006-July 2010

- Designed and implemented an on-site, scalable, photography based, social networking system. Responsible for everything from gathering evolving requirements, hardware and software architecture, and database/datastore design to front-end, hardware, end-to-end, user, and unit testing. SeenAbout.com/PunimPlanet.com's standards based front-end provides many AJAX controls, while the back-end is based upon a multi-tiered JEE stack built using Spring, Struts2, and Hibernate3. The system leverages numerous open source and commercial packages, both providing and consuming SOA services, e.g. enabling facial recognition, disconnected operation, and reverse Turing tests.

Parabon Computation, Inc.

February 2005-April 2006

- Developed Application Distributor, an XML based scripting language for distribution of native applications.

VECNA TECHNOLOGIES, INC

College Park, MD

Senior Software Engineer

July 2002-August 2004

- Product Manager for vKiosk System, hardware and software used in military treatment facilities to streamline patient visits by automating patient self check-in, vitals capture, and custom surveys.
- Technical Project Lead for vTrack product suite, a web-based project, expense, invoice, task, and time tracking tool used by organizations ranging from military treatment facilities to a bulk trash company.
- Designed and developed components for numerous J2EE based projects, heavily leveraging various open source packages (e.g. Struts and Hibernate), deployed within Oracle and Tomcat Application Servers.
- Project Manager and scientific contributor for \$2.7M NIH funded nosocomial infection detection system.
- Employee of the Quarter in the third quarter 2003. Qualified seven out of eight quarters at Vecna.

PARABON COMPUTATION, INC

Fairfax, VA

Computer Scientist

July 2000-September 2001

- Developed Prospector, a distributed genomic and proteomic sequence comparison package.
- Ported Molecular Dynamics Protein Folding application from FORTRAN90 to Frontier Distributed Platform.

LOONEY LABS

College Park, MD

Developer and Administrator

May 2000-October 2002

- Developed data model for unified business management tool, including online sales, order processing, contact management, product/retailer promotion, content management, community management, testing, and more.
- Implemented complex portal for fans, consumers, retailers, sales, fulfillment, game developers, and testers.
- Managed mailing list and web site migrations and upgrades using both off the shelf and custom components.

INSTITUTE FOR SIMULATION AND TRAINING

Orlando, FL

The University of Central Florida

Jan-Dec 1992, Feb-Aug 1994

Advisors: Charles Hughes, Michael Moshell, and Jacqueline Morie

- Designed and built hardware and software for creating and investigating Virtual and Augmented Environments.
- Helped develop Strawman Proposal for the inclusion of Dynamic Terrain within the DIS Protocol.

SIGGRAPH '94 Orlando, FL

The Association for Computing Machinery

July 1994

- Contributor: Designed, built, and contributed R.O.V.E.R. (Remote audio/Visual Explorer Robot).
- Assistant to the Chair of "Special Venue: The Edge."

ROBOTICS INSTITUTE

Pittsburgh, PA

Carnegie Mellon University

May 1993 - February 1994

Advisor: Karun Shimoga

- Created real-time mapping between a VPL DataGlove and an MIT/Utah Dexterous Hand as the first stage of a tactile and force feedback Tele-Manipulation and Tele-Surgery Project.

EDUCATION

UNIVERSITY OF VIRGINIA

Charlottesville, VA

Candidate for Doctor of Philosophy: Computer Science

Graphics Group, Advisor: David Luebke, January 1999-May 2000

- Designed and implemented a Scalable Distributed Interactive Ray Tracing prototype on a large scale cluster.

Master of Computer Science

December 1998

Isotach Group, Advisor: Paul Reynolds, May 1996-December 1998

- Integrated and tested hardware for Isotach, a novel network architecture based upon logical time.
 - Developed Isorule, an asynchronous parallel production system built on a Myrinet Isotach prototype.
- User Interface Group, Advisor: Randy Pausch, May 1995-April 1996
- Assisted in the design and testing of Alice, an Interactive 3D Graphics Programming Environment.
 - Investigated interaction techniques for use within immersive Virtual Environments.

CARNEGIE MELLON UNIVERSITY

Pittsburgh, PA

Bachelor of Science: Mathematics/Computer Science

May 1995

- PUBLICATIONS
- “**Scratchpad: Mechanisms for Better Navigation in Directed Web Searching**,” by Dale Newfield, Bhupinder Sethi, and Kathy Ryall, *Proceedings of the 11th Annual ACM Symposium on User Interface Software and Technology* (UIST '98), pages 1-8, November 1998, San Francisco, CA.
- “**Perceptually Driven Simplification Using Gaze-Directed Rendering**,” by David Luebke, Benjamin Hallen, Dale Newfield, and Benjamin Watson. *University of Virginia Technical Report CS-2000-04*.
- “**Apparatus and Method for Providing Sequence Database Comparison**,” by Douglas M. Blair, John J. Grefenstette, H. Hadon Nash, Dale I. Newfield, and Dustin M. Lucien. *U.S. Patent No. 7,231,390*.
- “**Prospector: Very Large Searches with Distributed BLAST and Smith-Waterman**,” by Douglas Blair, Dustin Lucien, Hadon Nash, Dale Newfield, and John Grefenstette. Poster Presented at *The 9th Annual International Conference on Intelligent Systems for Molecular Biology*, July 21-25 2001, Copenhagen, Denmark.
- “**Simulations of β -hairpin folding confined to spherical pores using distributed computing**,” by D.K. Klimov, D. Newfield, and D. Thirumalai, *Proceedings of the National Academy of Sciences*, June 11th, 2002; Volume 99, Number 12, pages 8019-8024.