

Delano J. McFarlane

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Education:

Columbia University New York, NY

PhD Candidate in Biomedical Informatics, Expected Completion 2010

PhD Research: Automated news analysis of the media's coverage of health. Media analysis remains an area of research dominated by manual methods. My research attempts to apply automated textual analysis methods like statistical language modeling and topic modeling to augment and enhance the way that researchers, health communications and professionals analyze news coverage.

Master of Philosophy degree in Biomedical Informatics, May 2008.

TA and Lecture responsibilities in Biomedical Informatics Methods and Healthcare IT courses

Master of Arts degree in Biomedical Informatics, October 2007.

Coursework: Graduate level coursework in Biomedical Informatics, Statistics, Public Health and Computer Science

Massachusetts Institute of Technology Cambridge, MA

Master of Engineering degree in Computer Science, June 1996.

Master's Thesis: A Distributed Parallel Ray Tracing Algorithm. This thesis project demonstrated how to improve the performance a 3-dimensional graphical generation algorithm by intelligently distributing the work across parallel processors.

Coursework: Graduate level coursework in Algorithms, Artificial Intelligence and Systems Design

Bachelor of Science degree in Computer Science, June 1995.

Senior Project: Automated Harmony and Counterpoint tutor. This tool used an automated rule based system to teach and evaluate a user's grasp of basic music theory.

Coursework: Undergraduate level coursework in various Computer Science topics including Artificial Intelligence, Computer Graphics, Data Structures and Software Development. Other courses included basic sciences, mathematics, and concentrations in literature and music.

Experience:

Ledona Consulting

1991 - Present

New York, NY

Independent Contractor. Successfully designed and developed research, data acquisition and statistical analysis software used by medical research facilities including Columbia Presbyterian Hospital, Mount Sinai School of Medicine, St. John's University, University of California San Francisco and Cornell University. Examples of the software developed include:

- **GAcq** (Graphical Acquisition Software) – Data acquisition application that provides medical researchers with a single tool for the acquisition of data and the management of an acquisition session. This tool acquires analog data, provides a researcher with a graphical environment for the definition of the data acquisition session, and can (via TCP/IP or a Serial Port) control a second computer used to prompt subjects for responses during an acquisition session. Developed for Windows using Visual C++.
- **GMark** (Graphical Data Analysis and Marking Software) – This application gives researchers a tool for viewing and analyzing raw data acquired by data acquisition software. Mathematical analysis algorithms built into the software provide researchers with an automated means of finding data anomalies, evaluating overall data trends and generating reformatted versions of the data. Developed for Windows using Visual C++.
- **Quest** – A Questionnaire collection system that is used for presenting behavioral surveys and collecting responses from research subjects. The system allows for the complete definition of a questionnaire, including question content, response options and instructions. Questionnaires can then be presented to subjects either on a Windows desktop or on a mobile Palm OS device. Subject responses are collected and saved (in the case of a mobile Palm diary, the responses are synchronized and saved onto a Windows desktop). Developed for Windows and Palm OS devices using Visual Basic, GCC C/C++ for Palm, Palm SDK and CDK and Microsoft XML API.

RightMedia

September 2004 – July 2005

New York, NY

Engineering Manager. Architecting and developing software for internet applications, management of a team of engineers, development of requirements for new projects, assist with defining the direction for the engineering department. Engineering work done using PHP and MySQL on Windows XP and Linux.

Impact Solutions

August 2003 – December 2004

New York, NY

System Architect and Lead Engineer. Architecting software solutions, evaluating products for current and future projects, meeting with clients to discuss potential opportunities, assisting in the development of project proposals.

Technology Solutions Company

April 2001 – August 2003

New York, NY

Principal Consultant. Responsible for architecting and developing intranet web applications and reporting tools.

- Architect and lead engineer for a web based sales field force ordering system of a major pharmaceutical company. This system supports 50 online and 9000 offline users. Sales people can place orders, track order status, acknowledge receipt of shipment; marketing and finance personnel can enter ordering allotments and perform various ad-hoc reporting. My primary tasks included data modeling, system architecture and development for the ordering, order allotment, data access and site navigation modules. System was built as a J2EE compliant web application. The online system uses JDK 3.1, Bea Weblogic 6.1, JDBC, JavaMail, Ant, JSPs, EJBs, Javascript, Crystal Reports and Oracle 8i on Unix and Windows 2000. In addition the offline system uses Tomcat, SQL Anywhere and Synchronologic for synchronization.
- Designed and developed a rapid deployment environment for small form factor, wireless web applications. This environment defines a generic method for accessing XML enabled data sources (e.g. flat files, Databases, Web services), transforming the resulting XML data to HTML using XSL. Most deployments were done using the BEA Weblogic server or the Apache Tomcat server.
- Architect and a Lead Engineer of a Collaborative Portal application. Defined a database for the management of collaborative objects (e.g. documents, reports). Defined J2EE EJBs for accessing and modifying database data. Performed initial setup, configuration and management of J2EE (Weblogic) environment. Helped in the definition of the overall layout and flow of the site. System was built using JDK 1.2.1, JSP, JDBC, EJB, Servlets, Oracle and Windows 2000.

Metarun Corp

August 2000 – April 2001

New York, NY

Senior Architect, Engineer, DBA. Responsible for designing, architecting and implementing major components of a web based eCommerce application.

- Developed a web Spidering technology that allowed users to define and retrieve vast amounts of data from any web content or eCommerce site. Built on a J2EE compliant application server, using Java application and EJBs connecting to an Oracle Datasource.
- Designed and managed an Oracle Database used to store multiple Product databases, eCommerce customer data, and application metadata.
- Assisted in the development of intelligent web based agent technology and an eCommerce website. All development performed on a J2EE compliant application server using standard J2EE technologies.
- Developed a web tool used to “teach” intelligent agents how to perform tasks. This tool allowed a user to record web navigation, define regular expressions used for searching and retrieving web content. This tool generated configuration and scripting metadata in the form of XML data files.

DoubleClick Corporation

April 1999 – August 2000

New York, NY

Engineering Manager. Managed the engineering team responsible for the development and maintenance of the Inventory Forecasting tool. Responsibilities included the management of a 6 person engineering team, coordinating tasks and resources with other groups (including development teams, sales, product development, quality assurance and project management), define the functionality of future features, explain technology to internal and external clients.

Software Engineer. As a member of the Database Targeting team I designed and developed enhancements to existing products and services. Redesigned database usage for improved performance and data management. Developed a Java Servlet based tool that allowed sales and support staff to query and management key backend processes. Acted as a liaison between sales and engineering. Work done in Java, C/C++, Perl, Oracle on Unix and Windows NT.

Oracle Corporation

July 1996 – January 1999

Redwood Shores, CA and New York, NY

Principal Consultant. Worked in the Advanced Technology and Solutions consulting practice creating and designing Internet applications and architectures.

- Senior Engineer during design and development of an early portal solution which integrated Oracle’s Workflow engine, Application Server and a customized security module.

- Staffed as an engineer during evaluation and design of a CORBA based global distributed financial system for one of the world's top 10 financial institutions.
- Senior Engineer and DBA during the development of a financial reporting tool that used Java Applet based office libraries that connected directly to an Oracle database to render spreadsheets and generating documents.
- Senior Engineer and DBA on an R&D project to develop an online, real-time auction application. The auction client was a Java Applet, which connected to a series of Java Servlets. These Servlets then connected to an Oracle Database.

Technologically focused on integrating Oracle Products with new, emerging technologies. (C/C++, Java, Oracle, Perl, Netscape and Oracle Application Servers)

Microsoft Corporation

June 1995 - August 1995

Redmond, WA

Program Manager. Design, development and testing for Microsoft Outlook; specifying Windows registry usage, developing an Object Model and creating testing software. (Visual C++, Visual Basic, and MAPI).

Institute For Defense Analysis

June 1994 - August 1994

Alexandria, VA

Software Developer. Creating Tracksim, a graphical analysis tool used to assist in the evaluation of naval exercises. Tracksim graphically replays naval exercises using data files that describe the events and actions taken during an exercise. (C/C++, Unix)

Massachusetts Institute Of Technology Media Laboratory

March 1993 - August 1993

Cambridge, MA

Software Developer. Developing User Interface, and Client Code for a 3-Dimensional Interactive Movie Browser. The browser rendered a virtual environment in which participants could interact and explore while searching for and watching digitized video clips. All development was done in Visual C++.

Background

Raised in The Bronx, NY. Attended The Bronx High School Of Science. Interests/obsessions include but are not limited to technology, music, sports and movies.