

Christopher David Freeland

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ACADEMIC PREPARATION:

M.S. in Biological Sciences, Eastern Illinois University, Charleston, IL, 1997

Concentrations: Bioinformatics, plant systematics

Teaching Responsibilities: Natural History courses, GIS, Biology labs

Internship: Horticultural intern, Missouri Botanical Garden, St. Louis, MO

Advisors: Dr. Janice Coons, Dr. Eric Bollinger, Dr. Tom Nelson

B.S. in Environmental Biology, Eastern Illinois University, Charleston, IL, 1996

Concentrations: Environmental science, vertebrate natural history

Internship: Illinois Student Environmental Network, Champaign, IL

Advisor: Dr. Kip McGilliard

PROFESSIONAL EXPERIENCE

Director, Bioinformatics, 2008 – date

Missouri Botanical Garden (MBG), St. Louis, MO

- Direct project managers, system developers and technical staff on bioinformatics solutions for MBG's Science and Conservation Division and international partners.
- Develop proposals, plans and budgets for new entities.
- Serve on international committees and provide technical leadership to collaborative projects with other institutions worldwide.
- Cultivate and develop relationships with partner institutions, funding sources, and foundations
- Determine which tools and utilities are most applicable to enable effective development and delivery of new applications.
- Regularly report status of projects to management and internal clients.

Technical Director, 2007 – date

Biodiversity Heritage Library (BHL)

- Technical lead for BHL, online at <http://www.biodiversitylibrary.org>.
- Coordinate development priorities and deployment schedule in close consultation with Internet Archive, Encyclopedia of Life, and other major data providers.
- Solicit funding and project assistance from private foundations and federal agencies.
- Manage team of full-time developers and technicians.
- Regularly report status of projects to BHL Executive Committee and Institutional Council.

Application Development Manager, 2002 – 2007

Missouri Botanical Garden (MBG), St. Louis, MO

- Technical coordinator and lead developer for all MBG web initiatives, including www.mobot.org and associated web sites.
- Implementation manager for all major systems, including event management, retail point of sale, and ticketing.
- Program manager for grant funded, international biodiversity informatics and library digitization projects, including:
 - **TROPICOS** – <http://www.tropicos.org>
TROPICOS is the world's largest botanical information system. It is a nomenclatural database used to track taxonomic names, geospatial information, and associated data. We are actively reengineering TROPICOS as a .NET application.
 - **SciLINC** – <http://www.scilinc.org>
SciLINC, or Scientific Literature Indexing on Networked Computers, is a public-resource computing application that will automatically index large amounts of scientific literature, ultimately providing users with an integrated Web portal for the discovery of information

about plants. Our application, freely available to the general public, will analyze text from digitized botanical literature in order to return a full-text index and a keyword index for each page. These keywords will be annotated with links to other online resources—i.e. Web pages about a particular plant—allowing users of the portal to search for terms, discover where they reside in a body of digitized literature, view the appropriate pages, and click through to discover other online resources associated with that keyword.

- **Botanicus** – <http://www.botanicus.org>
Botanicus is a freely accessible, Web-based encyclopedia of plants formed through coupling existing databases with digitized, searchable images of 18th and 19th century botanical systematic literature.
- **The Illustrated Garden** – <http://www.illustratedgarden.org>
The Illustrated Garden is our historic interface to digitized materials from the Missouri Botanical Garden Library's Rare Book collection. This site has been in operations since 1997 and laid the foundation for our Botanicus and SciLINC projects.
- Manage senior-level technical staff of programmers and developers.
- Grant writer for Foundation, Federal, and State grants.

Web Group Project Leader, 2000 – 2002

Missouri Botanical Garden, St. Louis, MO

- Project manager and lead support position for all Research Computing activities, including MBG's state-of-the-art Digital Imaging Lab.
- ASP developer for web applications, including ArcIMS mapping application.
- Grant writer for Foundation, Federal, and State grants.
- Instruct seminars, group talks, and demonstrations for staff and public.

Web Developer, 1999 – 2000

TALX Corporation, St. Louis, MO

- Programmer/analyst for Fortune 500 Employee Self-Service web applications
- Administrator of Windows NT servers

Intranet Developer, 1998 – 1999

United States Postal Service, St. Louis, MO

- Corporate web developer for the Midwest Area Office of the United States Postal Service

Web Analyst, 1997 – 1998

Missouri Botanical Garden, St. Louis, MO

- Lead developer for the MBG web site
- Instruct seminars, group talks, and demonstrations for staff and public.

PROFESSIONAL TRAINING

Programming with C#. Quilogy, St. Charles, MO, 2004.

Electronic Texts and Images – TEI and XML. Rare Book School at the University of Virginia, Charlottesville, VA, 2002.

Customizing ArcIMS. ESRI, St. Charles, MO, 2002.

Introduction to Internet Mapping with ArcIMS. ESRI, St. Charles, MO, 2001.

Moving Theory Into Practice. Cornell University, Ithaca, NY, 2000.

PUBLICATIONS

Freeland, C., Kalfatovic, M., Paige, J., & Crozier, M. (2008). *Geocoding LCSH in the Biodiversity Heritage Library*. Code4Lib Journal: 2. <http://journal.code4lib.org/articles/52>

ONLINE PUBLICATIONS

Biodiversity Heritage Library – <http://www.biodiversitylibrary.org>

Botanicus – <http://www.botanicus.org>

TROPICOS - <http://www.tropicos.org>

The Illustrated Garden – <http://www.illustratedgarden.org>

Missouri Botanical Garden web site – <http://www.mobot.org>

An Illustrated History of MBG – <http://www.mobot.org/mobot/archives>

IMLS Digitization Project - <http://www.mobot.org/mobot/imps>

PRESENTATIONS

BHL: Purposeful Technology. Boston Library Consortium Meeting. Boston Public Library. Boston, MA, 18 March 2008.
<http://tinyurl.com/6y6jmg>

Plays well with others, or What I've learned as a data provider in an interoperable world. Museum Computer Network Annual Conference, Chicago, IL, 2007.
<http://tinyurl.com/5bhthb>

Botanicus.org: Applying emerging technology to historic scientific literature. Botany 2007, Chicago, IL, 2007.
<http://tinyurl.com/54stoc>

User Needs: Biodiversity Heritage Library. Taxonomic Databases Working Group, Bratislava, Slovakia, 2007.
<http://tinyurl.com/59qlqf>

BOTANICUS: Providing global access to digitized taxonomic reference literature. 3rd Global Botanic Gardens Congress, Wuhan, China, 2007.

The Universal Exposition – Using 1904 World's Fair History to Start a Digital Library. Presented at the Missouri State Library Digitization Conference, Kansas City, MO, 2004.

Mellon Rare Book Consortium. Presented at Royal Botanic Garden, Kew, and the Natural History Museum, London, 2003.

The Morning After: What to consider once your site is online. Presented at the Missouri State Library Digitization Conference, Columbia, MO, 2003.

Digital Imaging and Conservation Databases at the Missouri Botanical Garden. Presented at Monsanto World Headquarters, Saint Louis, MO, 2002.

Mainstreaming Digital Imaging: Missouri Botanical Garden: Results. Presented at the Missouri State Library Workshop, Jefferson City, MO, 2002.

A Digitization Primer for Botanical and Horticultural Librarians. Presented at the 34th Annual Meeting of the Council on Botanical and Horticultural Libraries, San Francisco, CA, 2002.

Learning from Others. Presented at the Missouri Digitization Conference, Columbia, MO, 2002.

GRANTS RECEIVED

Trio Foundation of St. Louis. *Digitizing MOBOT's Materia Medica Collection*. Awarded January 2008.

Gordon and Betty Moore Foundation. *A Dynamic Platform for Interchange: Integrating Fedora into TROPICOS and the Biodiversity Heritage Library*. Awarded November 2007.

Institute of Museum and Library Services. *eFloras.org: A Collaborative Portal for Biodiversity Research*. Awarded September 2007.

John D. and Catherine T. MacArthur Foundation. *Biodiversity Heritage Library (BHL)*. Awarded June 2007.

Institute of Museum and Library Services. *Scientific Literature Indexing on Networked Computers (SciLINC)*. Awarded October 2005.

W.M. Keck Foundation. *Systematic Online Digital Information Retrieval Service (SODIRS)*. Awarded December 2004.

Andrew W. Mellon Foundation. *Rare Books from the MBG Library: Continuation*. Awarded December 2002.

Missouri State Library. *Mainstreaming Digital Imaging: Missouri Botanical Garden*. Awarded June 2002.

Andrew W. Mellon Foundation. *Rare Books from the Missouri Botanical Garden Library*. Awarded December 2000.

Institute of Museum and Library Services (IMLS) National Leadership Award. *Preserving and Digitizing Plant Images: Linking Plant Images and Databases for Public Access*. Awarded December 1998.

PROFESSIONAL SERVICE

Technical Director, Biodiversity Heritage Library. 2007.

Digitization Management Forum, IMLS Web-Wise Conference, 2004.

E-Type Workshop, All-Species Foundation, 2003.

Digitization of Natural History Collections Data Meeting, GBIF, 2002.

Institute of Museum and Library Services Field Review for 2002 National Leadership Grants, 2002

Web Working Group, Missouri Botanical Garden, 2002

Missouri State Scanning Guidelines working group, Missouri Library Network Corporation, 2001.

COMMUNITY SERVICE

Tower Grove East Neighborhood Association, President, 2004-2005.

Chatillon-DeMenil House Foundation, Board Member, 2003-2005.