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## HENRY HARPER ROGERS II

4616 Yates Mill Pond Road, Raleigh, NC 27606 USA • 919.380.8167 • resume@hhrogersii.com

Online portfolio available at <http://www.hhrogersii.com>

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### EXPERIENCE

#### ***SRA International • Research Triangle Park, NC • 2010 to present*** \_\_\_\_\_

##### ***Senior Software Engineer • National Institute of Environmental Health Sciences***

- Enhancing a science impacts tracking application written in Flex to improve the UX design including advanced UI components and remote procedure calls to a ColdFusion data persistence layer.
- Developing a project research and disease categorization and financial reporting application in Cognos 8 with an integrated project data management web application in ColdFusion 9 and Oracle 10g.
- Employing interface-flow diagrams and interactive Balsamiq UI mockups as an integral part of the web application design process. Developing jQuery plugins, UI components and custom JavaScript code libraries to extend AJAX-driven highly interactive UI designs from semantic HTML.
- Implemented an interactive CIO dashboard in Cognos 8 for visualizing and reporting on IT Support key performance metrics in one month as part of a small team of staff and consultants.
- Provided technical consulting in web analytics and conducted historical data analysis in support of the project team. Engineered an automated process with a colleague to migrate 10 years of web analytic data from Analog to WebTrends using custom scripts and dedicated log parsing tools in a mixed Windows/Linux environment.
- Working closely with senior research staff and Agile team members to engineer, develop and maintain institute and departmental web applications and data management systems.
- Performed an institute-wide Subversion server upgrade with LDAP authentication and authorization. Enhanced the Subversion WebDAV UI by converting an open source PHP/XLST based style sheet to Python and adding two-way integration with a JIRA issue ticket tracking system. Reorganized and migrated over 50 repository projects using Bash scripts on RHEL.

#### ***RTI International • Research Triangle Park, NC • 2000 to 2010*** \_\_\_\_\_

##### ***Research Programmer/Analyst • Office of Communications***

- Successfully developed and integrated institute-wide information systems on the intranet and extranet, in collaboration with departmental managers and technical staff, including
  - large document collection, online data repository and website indexing and search services using Google Custom Search Engine and Webinator with multilingual support and REST interfaces,
  - email list services integration with the marketing content management system for automated newsletter generation using Lyris ListManager's SOAP API,
  - digital asset management for use by corporate photographers using Canto Cumulus,
  - event registration and management tools custom built in ColdFusion,
  - web analytics and SEO optimization using Google Analytics, WebTrends, SmarterStats, and Analog,
  - e-commerce gateways integrating internal transaction processing, finance systems and PayPal, and
  - informational kiosks with remote content updating custom built in ColdFusion.
- Researched, tested and recommended the purchase of enterprise COTS applications to corporate stakeholders and worked jointly with staff and consultant systems engineers in configuring, installing and administering the applications.
- Provided mentoring to junior developers and technical assistance to cross-departmental teams on web technologies and information architecture.

### **Webmaster and Lead Developer • External Marketing Website**

- Developed and maintained the external marketing website ([www.rti.org](http://www.rti.org)) as the Office of Communications' lead programmer and analyst including all ColdFusion, JavaScript and MS SQL application programming in close consultation with the web management team.
- Integrated Flex and JavaScript third-party tools with corporate data resources to create rich internet applications, information visualization, link sharing, web analytics and social media.
- Launched multiple site redesign cycles as lead programmer, in collaboration with communication team members, including the
  - analysis of taxonomies and information architecture in a complex content ecosystem,
  - creation of online customer surveys and reporting tools,
  - translation and adaptation of site design layouts across all content templates types,
  - application of corporate graphic design standards, and the
  - programming and analysis support of marketing/SEO campaigns.
- Architected and implemented content management systems that facilitated the syndication of corporate content across internal and external channels through RSS, SOAP and REST interfaces.

### **Technical Project Manager • RTI Publications Database**

- Programmed and managed a research publication reference information management system with diverse data mapping processes including automated imports from PubMed via Reference Manager, multiple public and private access portals and automated Publication Bulletin email newsletters.
- Provided coordination and oversight of technical development team, cross-functional planning groups and consultant services in an ongoing effort to expand and improve the publication database.
- Consulted with research projects on information architecture, research ontologies and knowledge management architectures related to publication and citation data.

## **N.C. Solar Center, N.C. State University • Raleigh, NC • 1993 to 2000** \_\_\_\_\_

### **Solar Energy Extension Specialist • Passive Solar Buildings Program**

- Performed public outreach and professional education in passive solar architecture, environmental building design, green building technology, energy analysis and daylighting simulation.
- Programmed the Center's first information website in ColdFusion, developed intranet information databases, and produced technical publications.
- Coordinated statewide seminars and solar home tours, led professional training workshops, and facilitated conferences in cooperation with local, state and national professional organizations and the agriculture and industrial extension services.

### **Policy Analyst • National Database of State Incentives for Renewable Energy**

- Managed a DOE funded project to research and promote all utility, state and local government renewable energy incentives, loans and grants.
- Oversaw the research, analysis and authoring of two staff policy researchers and presented policy research papers at national renewable energy conferences.
- Researched and documented policies through multiphase surveys and online research and produced comprehensive national reports for consumers and industry.
- Developed an online policy website in ColdFusion that delivered policy search, summary data and resource links to the public.

### **Program Manager • Energy Efficient Affordable Housing Program**

- Edited construction specifications, designed home plans, and produced homeowner information kits.
- Organized training events for volunteer organizations and local agencies in energy efficient and affordable rehabilitation and new home construction.

## **Innovative Design, Inc • Raleigh, NC • 1986 to 1992** \_\_\_\_\_

### **Project Manager, Designer & Energy Analyst**

- Designed, drafted and managed various solar energy, residential and commercial projects.
- Conducted the simulation and analysis of thermal energy conservation and daylighting strategies for new and retrofit educational facility projects.

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## TECHNICAL

### Skills

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- **Web Application Development** - expert in engineering complex custom web applications built using object-oriented methodologies, MVC design patterns, and common frameworks.
- **JavaScript UI** - expert in designing modern user interfaces and programming complex client-side applications through asynchronous event management and document object manipulation using object-oriented development, debugging tools, and industry standard JavaScript code libraries as needed.
- **Content Management** - expert in architecting content management systems with version control, workflow management, and syndication through XML and JSON over REST and SOAP interfaces.
- **Search Technologies** - expert in designing custom search engine services with multilingual support and open APIs returning HTML, JSON or XML result sets over large document collections.
- **Relational DBMS** - expert in data modeling and developing stored procedures, functions and packages in Microsoft SQL Server, MySQL and Oracle Database.
- **Information Visualization** - experienced in building interactive and intuitive interfaces to complex data.
- **Enterprise Application Integration** - experienced in integrating, testing, configuring and administering enterprise applications in Windows or Linux environments.
- **Server Configuration** - experienced in Apache, Tomcat and Jetty configuration, LAMP authentication and performing server monitoring and performance tuning.
- **Process Modeling** - experienced in diagramming business process workflows and data mappings.
- **Multimedia** - experienced in 3D modeling and rendering, technical illustration and image editing.
- **Business Intelligence** - skilled with data visualization and reporting including Cognos and WebTrends.
- **Data Migration** - familiar with ETL process design and development.

### Technologies

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JavaScript | jQuery | SQL | NoSQL | HTML5 | CSS3 | JSON | AJAX | XML/XSLT | SOAP | REST  
RDF | SVN | Git | Canvas | WebGL | Flex | Flash | Java | Bash | Python | Mac/Windows/Linux

### Tools

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- **Adobe CS5** - UI prototyping, asset creation, and web design with Photoshop, Illustrator and Acrobat.
- **Abobe ColdFusion** - rich web application development platform and scripting language.
- **Atlassian** - issue and Agile project management in JIRA; project documentation in Confluence.
- **Balsamiq** - interactive mockups of user interface designs.
- **Canto** - digital asset management server configuration and support on Cumulus and Apache Tomcat.
- **Cognos** - IBM trained in Framework Manager and Report Studio.
- **Eclipse** - IDE of choice with GnuWin32, BeyondCompare, Notepad++, Coda, and Ant.
- **Firebug** - designing and debugging browser-based user interfaces.
- **FusionMaps** - Flash and HTML5 based data visualization toolkit.
- **Google** - enterprise custom search engine, mapping applications and web analytics.
- **Lyris** - automated mailing campaigns with ListManager and CMS via SOAP integration.
- **Microsoft** - dynamic creation of Visio, Excel and Word documents and SQL Server development.
- **MongoDB** - a document-oriented NoSQL database system.
- **Node.js** - highly scalable platform for data-intensive, real-time JavaScript applications.
- **Oracle** - relational database management and web application backend.
- **Pentaho** - ETL processing and data migration workflow.
- **Processing** - interactive mathematical models in Java and WebGL.
- **Reference Manager** - automated data migration from PubMed and bibliography management.
- **Selenium IDE** - browser based development environment for building integration test cases.
- **Thunderstone** - enterprise document and website indexing and search with Webinator.
- **Unfuddle & GitHub** - Subversion and Git version control and collaboration systems.
- **WebTrends** - web server log analysis, user tracking and conversion analytics.
- **WordPress** - customizing templates and integrating third-party plugins and information resources.

## EDUCATION

**NC State University • Raleigh, NC • 1984 to 1989**

**Bachelors Degree in Environmental Design in Architecture • College of Design**

Arcosanti Scholarship – Prescott, Arizona; 1987 construction workshop.

Pella Prize for Foreign Study – Lefkosia, Northern Cyprus; 1988 design studio.

**US Army Corps of Engineers • Heilbronn, Germany • 1980 to 1983**

**Sergeant • 237<sup>th</sup> Combat Engineer Battalion, 7<sup>th</sup> Brigade, 7<sup>th</sup> Army, USAREUR**

Squad Leader, Battalion Courier, US Army Achievement Medal, Good Conduct Medal.

**North Carolina Outward Bound • Morganton, NC • 1980**

