

James Bruce White

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OBJECTIVE

Computer programmer position using primarily PHP, HTML, CSS and JavaScript to develop dynamic web sites and to administer web sites hosted on Linux.

QUALIFICATIONS SUMMARY

BA/MS in physics and materials engineering. Computer certifications from Wake Tech in C language programming and UNIX system management. Seven years experience with computer networks and telecommunications systems. Five years experience developing web site with mapping functionality. Other work experience using Python, Java, and high performance computing.

- Linux - Installed and administered several Linux servers with Debian and Red Hat.
- PHP - Wrote several versions of a site with about 30 PHP pages that used PostgreSQL, PHP objects and PHP MapScript.
- JavaScript - Used plain JavaScript and jQuery to display DHTML and make AJAX calls.
- HTML - Created valid XHTML and HTML5 pages.
- PostgreSQL - Administered spatially enabled PostgreSQL database and wrote PL/pgSQL scripts.

CERTIFICATIONS

- CompTIA A+ Certified Professional, April 12, 2005
- Zend Certified Engineer PHP 5, January 15, 2009

PROFESSIONAL EXPERIENCE

Biodiversity and Spatial Information Center, Department of Zoology, NCSU, Raleigh, NC

Web Programmer, 15-30 hours/week 11/2005-

Online GAP Data Explorer Tool:

1. Southwest GAP - <http://www.gapservice.ncsu.edu/swgap/swgap/>
2. Southeast GAP - <http://www.gapservice.ncsu.edu/segap/segap/>
3. Puerto Rico GAP - <http://www.gapservice.ncsu.edu/prgap/prgap/>
4. North Carolina GAP - <http://www.gapservice.ncsu.edu/ncgap/ncgap/>

National Vegetation Classification Revision System: <http://www.basic.ncsu.edu:8080/nvcrs/>

National Vegetation Classification Hierarchy <http://www.basic.ncsu.edu/esaveg/>

GAP Predicted Distribution Viewers:

1. Southwest GAP - <http://www.gapservice.ncsu.edu/wms/swviewer.php>
2. Puerto Rico GAP - <http://www.gapservice.ncsu.edu/wms/prviewer.php>
3. Southeast GAP - <http://www.gapservice.ncsu.edu/wms/seviewer.php>

- Developed code for the GAP Online Tool to display maps of land cover and animal species predicted distributions in the Roanoke, Tar, Cape Fear, Neuse region. Software is PHP, Linux, Apache, and PostgreSQL with MapServer, PostGIS, and GRASS GIS software. Created buttons and graphics with PhotoShop and GIMP.
- Frames based site was created with valid XHTML. Extensive use of javascript and jQuery to allow controls in controls frame to alter contents of main map page. Wrote custom script to allow pan and zoom on map using click events. Map in main frame is created and drawn with jQuery AJAX. Page layout mostly done with CSS instead of table based. Used jQuery UI to create tabs and buttons.
- System administrator for 2 servers, first with Debian Linux and then with an NCSU administered version of Red Hat 5.

- Original code has been continually updated and enhanced using technologies such as AJAX, jQuery, jQuery UI, and Zend Framework Cache and adapted to run 4 sites for different geographical areas (North Carolina, Puerto Rico, Southeast US, and Southwest US). Also, all of the data for each project needed to be imported. Vector or line data and general species information was imported into the database, and additional PL/pgSQL scripts were sometimes written to properly format data in database. Python scripts were written to import raster maps into GRASS (Geographic Resources Analysis Support System).
- Responsible for running code on NCSU HPC parallel computers to model urban growth. Code is from the Gigalopolis project. This involves compiling the code using the parallel MPI compiler, some troubleshooting C code, and analyzing and submitting data.
- Worked for one year updating a Java Struts project for the NVCRS that would allow zoologists to review proposed new ecological type descriptions. Updated existing PostgreSQL database tables with foreign keys and database triggers.

International Business Machine, Research Triangle Park, NC

Level 1 Technical Support Engineer, full-time 06/2005-11/2005

- Provided help desk services for Juniper's Netscreen firewall/VPN products.
- Learned elements of TCP/IP, firewalls, and VPNs and applied this knowledge to assist customers configure and troubleshoot their Netscreens.

Digital Fruition, Raleigh, NC

Programmer, part-time 03/2005-06/2005

Wrote several short PHP programs used for insurance billing.

AlphaSource Computing, Raleigh, NC

Programmer, part-time 06/2003-10/2003

Wrote several short programs using Borland C++Builder.

International Business Machine, Research Triangle Park, NC

Ethernet Migration Technician, full-time 09/2002-12/2002

Inventoried computers and installed network cards and drivers for Windows 95, NT, 2000, and XP, and checked the TCP/IP settings on computers.

Nortel Networks, Research Triangle Park, NC

Test Technician, full-time 1995-2001

- Performed testing and trouble-shooting for DMS-100 product, esp. was very proficient in configuring, booting, loading of software, and trouble-shooting for DMS-100 SuperNode and XA-Core frames.
- Used MAP screen to BSY and RTS and test circuits and load software onto DMS-100 frames. Configured frames by inserting circuit cards and installing cabling.
- Served as shift leader for 15 months, allocated resources to meet weekly product test requirements by entering database reports into an Excel spreadsheet, and used it to calculate needs and order product. Acted as facilitator to fix problems in the flow of production material through our department.
- Trained over 10 technicians to operate SuperNode and XA-Core equipment.

Cary Audio Design, Cary, NC

Electronics Technician, full-time 1992-1995

Assembled vacuum tube high fidelity amplifiers using soldering iron and hand tools.

VOLUNTEER EXPERIENCE

Webmaster for <http://huguenot-manakin.org/> 03/2011-

- Primary responsibility was to convert old web site developed over the past 10 years from frames and table based design to modern CSS styled site.
- Created template file of valid HTML5 and also used the CSS template from [HTML5 Reset](#) . Created page layout with CSS and used @font-face to include embedded fonts.
- Used jQuery scripts to rewrite link targets, write a document modified date, and open Google search results page. Wrote AJAX script for picture [viewer page](#).

EDUCATION

Certificate in UNIX System Management and Programming, 1999

Certificate in C Language Programming, 1998

Wake Technical Community College

MS in Materials Engineering with minor in Physics, 1988
North Carolina State University

BA in Physics and Psychology, 1975
University of North Carolina