

Guinevere Nell
Research Programmer & Policy Analyst
3110 Mount Vernon Avenue
Alexandria VA 22305
703-969-6262
liberty@economicliberty.net
www.economicliberty.net

Employment

Heritage Foundation Center for Data Analysis

Research Programmer
September 2007 - current

Responsible for running, maintaining, and developing new features for microeconomic tax model, analyzing and presenting results. Analyze tax policy and tax data and forecast revenue, distribution and income effects of tax policy. Conduct original data analysis to evaluate public policy proposals and provide data for reports. Responsible for original policy research, analysis and presentation. Write background studies, web memos, web-log posts and other original research papers. Produce original analytical research that assists CDA and other Heritage Foundation economists. Perform statistical analyses to support economic research. Work with other CDA staff to design and create new analytical models including agent-based dynamic models for the study of entrepreneurship, and analyze dynamic economic consequences of policy proposals..

Forum One Communications

Web Programmer
September 2006-September 2007

Modified, extended, customized and implemented open source solutions including CMS installations such as SyntaxCMS developed in-house, for a wide array of local, national and international clients. Working in PHP and Perl and writing custom applications as well as extending reusable solutions, created complete websites and worked with project managers to determine, design and fulfill client requirements. Designed database structures, parsed and normalized data, tailored content management solutions for specific client needs.

Rio Grande Foundation

Policy Analyst
May 2006 – Sept. 2006

Researched and analyzed policy issues that impact New Mexico; wrote commentary for the web log; assisted staff in information gathering, research and administrative tasks. Performed econometric analysis of policy issues affecting the state. Performed independent research using my own agent based economic models, modifying and expanding them in order to analyze policy issues of concern to the foundation. Wrote programs in Perl to assist with administrative tasks.

National Center for Genome Resources

Software Engineer
April 2002-Dec 2002

Designed and coded object oriented software for genomic sequence database. Wrote user interface software that interacted with Oracle database in CGI and mod_perl environments. Wrote session and authentication libraries with database back end. Maintained and expanded existing libraries for parsing and distinguishing genetic sequence queries, locating full and partial matches and displaying findings to the user. Integrated components of the application using XML-based object integration architecture. Worked on live software, using CVS and multiple software testers to ensure bug-free shipping each week.

Thinking Pictures

Lead Perl Engineer

June 2001 -March 2002

Developed object oriented management and distribution software for streaming media applications for content to be distributed over the Internet to more than 4000 individual, Linux-based media stations. Integrated multiple applications written for various components of the system using an object messaging system and inter-process signaling. Wrote applications to interact with PostgreSQL database solution. Wrapped C++ code in Perl in order to integrate components. Wrote and maintained daemon processes. Developed, maintained and expanded software while system was live. Wrote code in Perl, shell script and C++. Programmed low-level interfaces to system based functionality.

ActiveBuddy / Colloquis

Software Engineer

Sept 2000 – May 2001

Wrote object oriented applications and maintained and debugged proprietary applications in CGI and mod_perl environments, interacting with MySQL databases using DBI and SQL. Wrote code to parse information gathered from natural language interpretation. Worked with other application engineers on proprietary gateway scripts. Worked with a team of engineers on large, complex applications.

Freelance Software Development Work

Software Developer

1998-2000

As a freelance and contract employee and working as an independent web development company, developed e-commerce software for proprietary solutions. Provided web-based database management systems, created pricing and discount strategies, provided automated back-end dynamic content management systems and authentication capabilities, and provided custom solutions for a wide variety of web based business needs.

Independent Projects

Agent Based Economic Model

September 2005 - Current

Agent-based economic model of the market as a complex system.

- Designed and developed unique complex systems model of the market economy
- Created auction and competition agent-based pricing schemes
- Modeled responsive government employment program
- Included learning strategies for firms to enhance decision-making
- Created semantic-driven cost and preference logic
- Used for economic policy analysis

Models private firms, consumers and public firms acting as employer of last resort; wage and product markets with single or multiple products using semantic-based preferences and economies of scale; welfare program, price controls, immigration, wholesale and retail sales. Presented at the International Conference on Economic Science with Heterogeneous Interacting Agents.

Working Papers / Publications

Independent Work

1. [Luxembourg Income Study Working Paper](#) - No. 424. Prosperity and the Welfare State: The Effect of Benefit Generosity and Wage Coordination on Absolute Poverty and Prosperity in Cross-National Perspective.
2. [Comparing EITC and Minimum Wage](#) - Comparing the Impact of the EITC and the Minimum Wage on Poverty and Employment
3. [The Dynamic Consequences of Public Employment : An Agent Based Approach](#) (updated for 2008)
4. [Property Rights Under the 1993 Constitution of the Russian Federation](#)
5. [Agent Based Modeling in Perl](#) (published in The Perl Review)
6. [Socialism as Impossible: A Reassessment of Theory in Light of the Available Evidence](#)
7. [The Seed Theory of Economic Calculation: Lange Revisited](#)
8. [Flexible Pricing and the Market Process](#)
9. [Economic Calculation and Surplus Extraction: A Reply to Crampton and Farrant](#)

Heritage Papers

1. [Coming Together on Tax Simplification: AMT and Extending the Tax Cuts](#)
2. [Economic Effects of Increasing the Tax Rates on Capital Gains and Dividends](#) (with William W. Beach and Rea S. Hederman, Jr.)
3. [The End of Pro-Growth Tax Policy: How the Rangel Tax Bill Could Affect the U.S. Economy](#) (with William W. Beach)
4. [More H-1B Visas, More American Jobs, A Better Economy](#) (with James Sherk)