

Wayne Folta

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DATA SCIENTIST & ANALYST

Scientist and communicator with extensive experience in programming, research, and presentation. Combines insights gained from both people and data to present an attractive, understandable, and meaningful analysis.

M.S. in Artificial Intelligence
R, Stata, and X13-ARIMA-SEATS
Quantitative Modeling & Forecasting
Award-winning Programming

Conducting on-camera interviews
Dynamic Presentation & Teaching
Video Scripting & Editing
Agile Learning

EXPERIENCE

Consultant, Pro bono, Arlington, VA

2010 – present

- Researched and statistically modeled electricity usage for condo association (annual budget \$1.8 million). Results gave Directors confidence to cut electricity line item, avoiding an unpopular assessment increase.
- Initiated and led the redesign of condo association management office space, to dramatically improve customer service, employee satisfaction and retention, and employee performance.
- Analyzed event attendance data for a non-profit using dynamic linear models in R, and X12-ARIMA. Forecasted attendance decline was confirmed within 2 years, resulting in a planned reboot of the event.
- Created shift-scheduling software for a library reference desk, using an Excel front end and GLPK's glpsol for the back end. GMPL source available at <thinkinator.com/scheduler-model/>.
- Taught kids in grades 6-12 to program games using MIT's Scratch. The workshop was Arlington County Public Library's Youth Service's most popular summer offering in 2011 and 2012.

Video Producer, McLean Bible Church, Vienna, VA

1997 – 2013

- Reliably developed videos on tight schedules – often weekly – including scripting, interviewing, shooting, editing, and visual effects for audiences of 2,000–12,000.
- Videotaped people with no on-camera experience, and by placing them at ease, drawing out stories, and creative editing made compelling and successful ads.
- Created showcase video for <Jill's House> for the Sponsor a Child for a Night campaign that raises \$600,000 annually.
- Extended version of <vimeo.com/65319550> video was a highlight of Jill's House's 2013 black-tie banquet which was attended by 450 guests and the media, and raised \$750,000.
- Reason for departure: department eliminated in major restructuring.

Systems Analyst, Quality Systems Incorporated, Tysons Corner, VA

1995 – 1996

- Took initiative to automate a manual data acquisition and analysis process, which included platforms ranging from IBM mainframes to Sun UNIX workstations. The result was a process that was faster, had quality statistics reports, and an audit trail.

Computer Scientist, National Security Agency, Fort Meade, MD**1982 – 1995**

- Received 13 cash awards and other honors, including a Graduate Fellowship and attaining Senior Member of the Agency's Technical Track.
- Led a team in the design, development, testing, and deployment of a UNIX content-based message router as a part of a world-wide communications system, for the first time moving mainframe-level capabilities to the field.
- Redesigned the network services and storage architecture for an organization of 200+ programmers. Evaluated vendor proposals, and selected the non-default-vendor solution, resulting in greater reliability and cost savings than comparable offices.

EDUCATION

- *M.S. in Artificial Intelligence*, George Mason University, 2010. Received an *Outstanding Academic Achievement Award*. Courses included Pattern Recognition, Biometrics, and Independent Research under Dr. Harry Wechsler, Fellow IEEE and Director of the Center for Distributed and Intelligent Computation.
- *Ph.D. work in Computer Vision*, University of Maryland, 1988–1994. Part-time Ph.D. student, working under Fulbright Scholar Dr. John Aloimonis. Completed comprehensive exams, but not the dissertation.
- *B.S. Computer Science*, Rochester Institute of Technology, 1984.

SOFTWARE

- Programming: R, Python, C, Lisp, Perl, SQLite, Lex, YACC, regex.
- Analysis, quantitative and exploratory: R (including dozens of R packages), Stata 13, Stan (MCMC statistical package), GNU MathProg modeling language and various optimizers, X13-ARIMA-SEATS, Weka, Numbers, Excel, Graphviz, Igor Pro, Cytoscape.
- UNIX (SunOS, MacOS X) administration, Virtualbox and Parallels Desktop virtual machines, MTA administration, ntpd, tcpdump, Little Snitch, and other network tools.
- Media: Final Cut Pro, Nuke, After Effects, ffmpeg, Motion, Soundtrack Pro, Color, DVD Studio Pro, Photoshop, Illustrator, Logic, Reason, Cinema 4D, Modo, ImageMagick, Compressor and other audio and video compression tools, Quartz Composer, Isadora.
- Reporting, etc: LyX, TeXShop, Sublime Text 2, Keynote, Pages, PowerPoint, Word, OmniOutliner, OmniGraffle, Scrivener, Papers, Eaglefiler.

ADDITIONAL INITIATIVES

- Have served as Director, Secretary, and Vice President of the Board of the Lexington Square Condominium Association. Association has 367 units, in four high-rise towers, with \$1.8 million annual budget.
- More samples of investigations and writing on blog: thinkinator.com.
- Active on the StackExchange statistics website Cross Validated: stats.stackexchange.com/users/1764/wayne.
- Gallup/Clifton StrengthsFinder top 5: Learner, Intellection, Ideation, Strategic, Input.
- <http://thinkinator.com/waynes-resume/>. Resume was created in LyX, a TeX-based document system, and a PDF version is available at the URL. (All text bracketed with < and > are clickable links.)