Andrew Warshaver

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(484) 894-3224

Education

Carnegie Mellon University – School of Computer Science Pittsburgh, PA
Major: Computer Science Minor: Computational Finance May, 2008
GPA: 3.79 Andrew Carnegie Society Scholar

Competitions

Team Member – CMU Dragons September 2004 – May 2008
ACM International Collegiate Programming Competition
- Honorable Mention at the 2006 World Finals, placed 4th, 5th, 5th and 6th regionally

Topcoder – Individual Competition 1999 – 2002
- Over $2000 in cash prizes
- C, C++, STL, Java, Math

Coursework

Operating System Design and Implementation (C)
Computational Discrete Math
Foundations of Programming Languages (ML)
Algorithm Design & Analysis (Math)
Graph Theory (Math)
Probability and Computing (Math / R)

Technology

Mastery: C, STL, Python, Perl, Java, AJAX, Javascript, SQL, Bash Script, sed, awk, SML, OCaml Django, latex, HTML, CSS, XML
Proficiency: C++, jQuery, Ruby, C#, DirectX, PHP, R, Adobe Flash, Flex
Software: UNIX, Heroku, Oracle, Git, Postgres, MySQL, Jira, Apache, AWS EC2, S3, SVN
Protocols: Arca, Bats / Binary, FIX, Edgx, CCG, JSON

Experience

Founder
DIRECT DEMOCRACY PARTY, USA November 2014 - Present
- Our platform is based on the principles of Liquid Democracy, a form of Representative Democracy for the technology age. Our current mission is educating the public on electoral reform and promoting independent and third party candidates.
- The initial version of the prototype features an open primary as well as the ability for ordinary citizens to easily define and promote their own platforms, in an attempt to wrench control away from career politicians and the establishment parties.
- Future plans for the platform include vote pairing / strategic voting, regional primaries, online debates, and citizen juries.
- Repo on GitHub, written in Python, using Django, Postgres, and Heroku

Software & Systems Engineer New York, NY
STELLA SERVICE September 2013 - November 2014
- Full stack web development, database development, system architecture, system deployment, and UI design
  - Python, Django, Postgres, SQL, AWS, AJAX, HTML, CSS, Apache, Bash
- Spearheaded the team's transition to Git from SVN
  - Developed customized version of git-flow for internal use cases, including custom commands for branches, hotfixes, and release candidates. (Bash Script)
  - Taught colleagues subtleties of Git branching and merging; spec. self merging
- Developed deployment script to intelligently handle application changes, database changes, media changes, and load scaling, while fully integrating with our git-flow (tag and merging)
- Retired an ad-hoc method of CDN cache clearing and integrated a safer framework.
- Member of small team responsible for integrating with (external) GoodData platform
  - Responsible for extensive documentation reading and comprehension.
  - Liased with GoodData consultants to develop solutions to our unique dataset and understand elements missing / unclear from the documentation.
  - Design, test, and develop a Data Model underneath the GoodData Infrastructure
- Member of small team that interfaced with GOOGLE to fulfill service contract
  - Weekly XML dump of high-level data & metrics
  - Worked with engineers at Google to diagnose & refine specification / requirements

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Experience (continued)

Software & Systems Engineer — New York, NY
THESYS TECHNOLOGIES — May 2010 – July 2012

- A significant fraction of US equities daily volume is traded through the Thesys platform
- Jointly developed the platform supporting microsecond-scale latency (C, C++, STL)
- Developed provisioning system and installed new machines at co-located data centers
- Developed a system for centralized configuration of distributed machines and processes
- Developed a web application to support risk surveillance, monitoring, and diagnostics
  - Interfaced with client to efficiently develop and prioritize feature requirements
  - Python, Adobe Flex, JSON, Postgres, Berkley DB, SQL, Apache
- Managed support desk, handling all live production issues with extreme time sensitivity
- Developed infrastructure to manage recurring jobs with smart error notifications
  - Fully deployed to manage ~80% of Thesys' systems
  - Revamped and converted existing cron jobs to be more efficient, automated, and resilient under the improved infrastructure
  - Achieved via smart parallelization, load balancing, and gnubatch
  - Bash Script, sed, awk, Python, Berkley DB
- Responsible for historical data logging and processing (EC2, S3)

Software Engineer — Fort Wright, KY
USED-CAR-PARTS.COM — July 2008 – April 2010

- Full stack web development, page layout / UI design, database design
  - Perl, Oracle, SQL, AJAX, HTML, CSS, Apache
- Developed a module to generate a dynamic search query given a set of selected search parameters. This query had to be fast enough to run on over 100 million parts.
- Developed a framework to test the query module that simultaneously executed thousands of test cases and then reported the results via statistics sheet and graphs.
- Responsible for recruitment of engineers, attended 2 job fairs at CMU, held over 50 interviews, made 5 successful hires of engineers and project managers.

Early Experience

Software Engineer Intern — New York, NY
GOOGLE INC. — Summer 2006

- Developed search module for orders inbox
  - Supported simple order # searching and complex queries including order date, fulfillment status, cost of order et al.
  - One-box expression-based input supported (eg. Cost > 100 and status:new)
  - Also supported standard form entry
  - Java, HTML, CSS, AJAX, MySQL
- Developed a module to spell check comments before check in (Python)

Junior Associate — New York, NY
JANE STREET CAPITAL — Summer 2007

- Developed a program to visually display the order book at any given time of day with ability to step forward and backward in time step-wise or time-wise (OCaml)
- Developed a module to compute time-series computations over arbitrary date/time ranges, scales, and computation parameters (eg, max/avg/variance and any arbitrary foldr-style functions acceptable) (OCaml)
- Developed a distributed version of cron to facilitate centralized control and monitoring of recurring processes (OCaml)
  - Job descriptions written in easy to understand OCaml syntax, hot-loaded
  - Asynchronous programming under a monadic framework

Teaching Assistant — Pittsburgh, PA
COMPUTER SCIENCE DEPARTMENT - CMU — January 2005 – May 2008