Michael Woods

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Education

Master of Science in Engineering, Computer and Information Science
University of Pennsylvania — Jan. 2012 – May 2015 (expected)

- Coursework in machine learning, computer vision, physically-based rendering, and computational linguistics

Bachelor of Science, Computer Science (Honors)
Rutgers, the State University of New Jersey — Jan. 2003 – May 2007

Work Experience

Abramson Cancer Center, University of Pennsylvania — Philadelphia, PA
Application Developer — Nov. 2010 – Present

- Created the first iteration of the Abramson Cancer Center Applied Research Database (ACCARD), a unified clinical and research data aggregation platform that simplifies the day-to-day data management and analysis tasks of cancer researchers.
- Wrote an interactive data exploration tool that allowed non-technical staff to create, save, and transform database queries and reports via a simple, responsive web interface.

AmeriFlex — Mt. Laurel, NJ
Software Developer — Apr. 2010 – Nov. 2010

- Created and maintained a number of in-house tools that automated many of the tedious and error-prone tasks conducted daily by business staff.
- Reverse engineered and subsequently rewrote an undocumented proprietary ACH payment processing system critical to the functioning and profitability of the business.

New Jersey State Parole Board — Trenton, NJ
Software Developer — June 2007 – Apr. 2010

- Developed an innovative, public-facing geographic parolee search tool with an integrated absconder tip submission interface. With the help of the public, a number of useful tips were received by the tool that led to the apprehension of fugitive parolees.
- Created the official New Jersey State Parole Board website (http://www.state.nj.us/parole) utilizing standards compliant design. The Google Maps API was utilized to create an interactive map of SPB district offices throughout the state.

Projects & Open source

See http://github.com/mikeswoods

Professional Interests

Python, C++, Julia, Haskell, OCaml, functional programming, type systems, machine learning, data visualization, natural language processing, computer vision, raytracing, OpenGL/shaders, procedural generation