Paul Kiernan

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EDUCATION

CORNELL UNIVERSITY

BS in Electrical and Computer Engineering
May 2012 | Ithaca, NY
College of Engineering
Conc. in Electrical Engineering
Conc. in Computer Science
John McMullen Dean Scholar
Goldfarb Cornell Tradition Fellow

LINKS

Github:// **paulkiernan**
LinkedIn:// **paulkiernan**
Twitter:// **@gaelic**

COURSEWORK

Robot Learning
Operating Systems
Open Source Software Engineering
Unix Tools and Scripting
C ++ Programming
Computer Architecture
Digital Systems Design Using Microcontrollers
Microelectronics
Embedded Systems
Computerized Instrumentation Design
Digital Logic Design
Discrete Structures
Signals & Systems
Probability and Inference
Lasers and Optoelectronics
Controlled Fusion

SKILLS

PROGRAMMING

Over 60,000 lines:
Python
Over 5000 lines:
Java • Shell • Matlab • LaTeX
Over 1000 lines:
MySQL • C • C++ • Assembly
Familiar:
JavaScript • CSS • PHP

INTERESTS

Cooking • Boxing • Particle Physics
Fusion Engineering • Music
Aerospace Engineering

EXPERIENCE

MOAT | Software Developer

May 2012 – Present | New York City, NY

- Developed the full-stack behind Moat Pro, an enterprise ad-intelligence platform that allows markets to research trends in the online advertising industry.
- Developed network of web crawlers (Moatbots) capable of programmatically detecting, capturing, and indexing online advertisements.
- Extended Moatbots to index rich-media advertisements in addition to traditional Standard IAB formats.
- Extended Moatbots to include regional indexing capabilities, e.g.- develop a representation of the UK ad landscape by proxying traffic through UK servers.
- Developed ETL for consuming warehoused Moatbot data and transforming it into an optimized, queryable form.
- Refactored ETL to aggregate indexed results across different regions.
- Developed API to cache architecture for client side report generation.
- Developed Pyramid web application that used the client API to serve reports.
- Developed autocomplete service for web application that served as the primary means of directing site traffic.
- Developed Pyramid middleware for logging user engagement with the client-facing brand intelligence tool.
- Developed homebrew real-time analytics tool for consuming engagement data to build reports on site usage patterns and behaviour.
- Deployed a Jenkins continuous integration server for regression testing.
- Developed homebrew heterogeneous server role and configuration deployment system in Amazon's EC2.

CORNELL UNIVERSITY | Linux Infrastructure Consultant

Jan 2009– May 2012 | Ithaca, NY

- Lead undergrad consultant at the Laboratory for Elementary- Particle Physics.
- Designed, installed, and serviced solutions for a network of high-performance computational nodes used in the study of beams and accelerators, photon science, and particle physics.
- Managed a complex network of heterogeneous Linux nodes responsible for serving the department's administrative tasks.

RESEARCH

CORNELL ROBOT LEARNING LAB | Undergraduate Researcher

Jan 2011 – Mar 2011 | Ithaca, NY

Worked with **Prof. Ashutosh Saxena** to create a supervised learning algorithm for finding good object placements using point-clouds of an object and its surrounding area. Implemented the algorithm on an Adept Viper s850 robotic arm equipped with a Microsoft Kinect. SVM models built from our training examples attained performances in excess of 80% for both precision and recall on both flat and non-flat surface placement. **Publication** .

CORNELL SPACE SYSTEMS DESIGN STUDIO | Power Subteam

May 2010 – Dec 2010 | Ithaca, NY

Designed and fabricated the ATxmega128 based power distribution system for Cornell's operationally responsive, high agility space imaging system codenamed 'Violet'.