

# John R. Ailor

SOFTWARE ENGINEER · FULL STACK DEVELOPER

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## Experience

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### URBN Inc

<http://www.urbn.com/>

#### ENGINEER

2015-08-20 / Present

- Worked with small team to build and launch a new brand website; now handles about 4 million monthly visitors
  - Utilized Node.js and Hapi.js web-framework to interact with API services
  - Harnessed the power of ES6 and functional programming (Ramda.js) to develop rich user interfaces
  - Developed using stream-based events (most.js) to handle event based programming paradigms
  - Used LESS-based CSS pre-compilation to style and format client-facing website
  - Successfully launched website globally at beginning of April 2015
- Worked with a team of developers to build a product management system to be used with multiple brands, collectively handling about 26 million monthly visitors
  - Worked with Oracle/Django/jQuery to build an interactive system to manage products for microservices architecture
  - Converted all ES5 code to ES6 and updated HTML templates for reuseability
  - Used Python services to migrate legacy product data to new system
  - Used SASS-based CSS pre-compilation to style and format internally facing website
  - Successfully launched new product management system to internal clients in August 2015, stayed with team for maintenance and feature improvement
- Re-imagined and rebuilt the e-commerce promotion and coupon management suite
  - Coordinated with e-commerce merchandisers to develop requirements
  - Designed import and export algorithms for various message consumers
  - Prioritized and managed distribution of development resources to ensure timely project completion

### Philadelphia Game Lab

<http://philadelphiagamelab.org/>

#### INFORMATION LEAD / CIO

2014-01-14 / 2015-08-13

- Worked to deploy and develop on AWS EC2 Linux and S3 instances
  - Completed numerous installs of C++, Node.js, php, Apache httpd, Mongo, and other software
  - Developed HTTP scripts in C++, and php, as well as programs in C++, Python, and Node.js
  - Enabled real-time requests for gaming and live applications in Node.js
- Managed a team of eight programmers and a graphic artist through several projects
- Pitched my software architectures successfully to clients, investors, and technology partners
- Worked with CEO to manage day-to-day operations of company and personnel management, including hiring 20 new employees
- Oversaw design and execution of several client and in-house projects
- Worked with Unity, Unreal, and Oculus Rift for a temporary interactive installation

### MyOhMy Design and Build

#### Co-FOUNDER / CIO / LEAD DIGITAL MODELER

2009-09-01 / 2015-06-15

- Innovated 3D modeling process, using CAD software, resulting in a sustained national commercial endeavor
  - Acquired 50+ nation wide clients specializing in off-campus student housing in 15 states
  - Out bid multiple outsourced companies providing similar services in order to secure repeat business
- Rendered 3D Models to create photo-realistic images for marketing purposes
- Collaborated with property managers/owners and on-site personnel to ensure model accuracy
- Expanded process to meet market needs and developed a staff to meet demand as business expanded
  - Developed numerous proprietary software packages to be used in modeling processes, including model mapping technologies in Ruby, C++, and Java
- Migrated a ASP.NET MVC website from rackspace hosting server to an AWS EC2 instance for a non-profit organization

## SAP America

<https://www.sap.com>

GLOBAL CUSTOMER OPERATIONS CO-OP

2013-04-01 / 2013-09-25

- Worked with a design team to build a cross-platform mobile theme in CSS and JavaScript, which was deployed to internal teams (SAPUI5)
- Coordinated with numerous departments to gather requirements and develop internal department pages (SAP Portal)
- Worked to build and update department-specific pages on the SAP internal social network (SAP JAM)
- Trained business users in the use of HTML for the basic purpose of intranet editing in order to ensure continued maintenance of system content

## National Board of Medical Examiners

<http://www.nbme.org/>

INTERNET SERVICES CO-OP

2012-04-01 / 2012-09-25

- Maintained multiple external and internal applications
- Integrated updated intranet with existing version in order to ensure compatibility with Microsoft SharePoint
- Designed and organized layout of new and existing web pages built on ASP.NET VB and Microsoft SharePoint
- Worked to modernize CSS and JavaScript on existing applications

## Campus Apartments

<http://www.nbme.org/>

WEB TECHNOLOGIES ASSOCIATE

2009-10-01 / 2012-04-01

- Converted Database-centric proprietary Rental Management System and Tenant portal from ASP.net 1.1 to 4.0 utilizing code behind and Master Pages in VB and C++
- Simultaneously updated database from SQL Server 2000 to SQL Server 2008, standardized table and stored procedure naming conventions
- Photographed buildings and edited images in Photoshop in order to further renters' interest
- Helped introduce semi-agile workflow with focus on pair programming using VisualSVN for Visual Studio

## Education

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### Drexel University

Philadelphia PA

BACHELOR OF SCIENCE IN COMPUTER ENGINEERING

2010-09-20 / 2015-06-15

- Major in Computer Engineering
- Minor in Electrical Engineering
- Minor in Business Administration

## Project

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### SMARTBoard Controlled Ground Vehicle for Radiation Detection

UNMANNED GROUND VEHICLE

2014-09-01 / 2015-06-01

- Developed a Ground Vehicle on top of Raspberry Pi and Arduino with attached sensors using C++, Python, and Node.js
- Developed SMARTBoard interface in HTML5 and CSS3 with Bootstrap and Google Maps Javascript API
- Built custom server-side software in Python and Node.js to facilitate communication between SMARTBoard and Unmanned Ground Vehicle
- Collaborated with a short-range rocket development team to increase scope of radiation readings, communicating through a custom Python API

### Microsoft Visual Simulation Environment

ROBOTICS SIMULATION

2013-09-01 / 2013-12-01

- Used MS Visual Simulation Environment to simulate over 100 differential drive robotic entities
- Worked with C# and MVSE API to communicate with simulated robots via Microsoft CCR
- Generated 3D map environment from static images for simulated robots to interact with other simulated robots

### Disease Spread Through Simulated Urban Environment

JAVA SIMULATION

2012-09-01 / 2012-12-01

- Researched disease characteristics and statistics in order to create an accurate representation of the environment
- Used Object-Oriented programming to implement companies, families, schools, people, and public transportation
- Monitored the spread of disease starting with patient zero parameters by using a variety of data structures
- Analyzed results using Excel and Excel VB Macros by comparing generated data to real-world disease spread data, as well as existing models

## Extracurricular

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### Volunteer Sound Engineer

SAINT LUKE LUTHERAN CHURCH

2008-05-01 / 2013-09-01

- Managed Audio and Visual technology for the church services, and band performances
- Installed several sound boards, kept technology and equipment up to date
- Worked with church committee to ensure funding and budget
- Taught replacements how to operate soundboard and audio technology
- Oversaw installation of two projectors and projector screens
- Helped organize and ensure smooth operations during events and services

### National Technology Chair

NATIONAL ORGANIZATION FOR BUSINESS AND ENGINEERING

2012-09-01 / 2013-09-01

### Website Management Chair

DREXEL UNIVERSITY MATH STUDENT ORGANIZATION

2012-09-01 / 2013-09-01

### Technology Development Chair

NATIONAL ORGANIZATION FOR BUSINESS AND ENGINEERING AT DREXEL

2011-09-01 / 2012-09-01