

James K. Kurtz

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School

Drexel University

Bachelor of Science, Computer Engineering
Minor, Entertainment Engineering
Minor, Business Administration

Philadelphia, PA
Class of June 2016

Skills

Software: Amazon Web Services (EC2, S3, RDS, EB, Route 53, SES, SNS), Apache, Git, Hg, IIS, Illustrator, IntelliJ IDEA, InDesign, MATLAB, Microsoft Office (Access, Excel, PowerPoint, Publisher, Visio, Word), Photoshop, Reaper, Visual Studio (preferred with ReSharper), WebMatrix, Wireshark, and Dev Tools of Chrome, Firefox & IE

Languages: Bash, C, C++, C#, CSS3, Go, HTML5, Java, JavaScript, LOLCODE, MATLAB, PHP, PowerShell, Python, SQL, VB

Operating Systems: Windows, MacOS, Ubuntu, Raspbian, iOS, Android, Windows IOT, Windows Server

Experience

Freelance Web Development

CMS, CRM & Web App Developer

Valley Forge, PA
June 2010 to Present

- ◆ General web design and development work, mostly for small businesses and non-profits
- ◆ Conceptualized and developed a PHP-based content and customer management system for non-profits
- ◆ Enabled e-commerce and web payments through several payment processors
- ◆ Currently handle about 400k page views and 1.1M API calls per month

Comcast Corporation

Comcast Labs Research Engineer

Centennial, CO
July 2016 to May 2017

- ◆ Prototyped methods for identifying and locating individuals in a home through RF (internally published)
- ◆ Researched viability of Software Defined Radios for consumer applications (internally published)
- ◆ Developed method to automate home automation rule creation (patent paperwork filed internally)
- ◆ Researched and prototyped system for geolocating LoRa transmissions (patent paperwork filed internally)
- ◆ Developed system for measuring, interpolating, and mapping LoRa coverage, accounting for topography
- ◆ Developed lab test tools for MPEG, especially validating MPEG-TS packetization
- ◆ Developed prototypes of alternative UI systems, such as electrodes on skin to detect arm motions
- ◆ Contributed to Comcast Labs internal website and documentation

Analytics Graphics, Inc. (AGI)

Development Co-op

Exton, PA
April 2015 to September 2015

- ◆ Contributed to Cesium, a JavaScript library for creating 3D globes in a web browser
- ◆ Improved parallelism for processing large data sets of terrain into bandwidth-efficient formats
- ◆ Created several demos for trade shows and the web
- ◆ Worked with FAA ASDI data for analysis of commercial flight patterns and performance
- ◆ Created an application for syncing media playback across multiple machines with frame-accurate precision

Oracle Corporation

Front-End Developer Co-op

Bala Cynwyd, PA
March 2014 to September 2014

- ◆ Used common JavaScript libraries such as jQuery, Underscore and jQuery UI.
- ◆ Contributed to a charting library (line charts, pie charts, etc.) based on D3.js
- ◆ Extended internal libraries to add new functionality
- ◆ Exposed to a full release cycle and large-scale development methodologies on an Oracle stack

Comcast Corporation

Technology & Product Co-Op Engineer

Philadelphia, PA
April 2013 to September 2013

- ◆ Supported development of the prototype voice remote, now deployed to ~10M homes
- ◆ Developed a redundant prototype cloud-based user authentication backend
- ◆ Developed Android apps to support bleeding-edge demos of emerging technologies
- ◆ Contributed to a DLNA client software stack

Other Stuff

Team Leader, Senior Design (Capstone) Project, "The Drone that Brings You Things," 2015 - 2016
Mid-Atlantic Intern, Robotics Education and Competition Foundation, 2013 - 2014
Technology Committee Secretary & Systems Engineer, Tenth Presbyterian Church, 2011 - Present
Member, IEEE, 2012 - Present
Avid Skier & Cyclist