
KORY KIRK

SOFTWARE ENGINEER

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Profile

Computer Scientist and open source software enthusiast with experience ranging from building distributed virtualization appliances, programming advanced network protocols, home automation, and implementing novel Artificial Intelligence techniques.

Skills

Software Engineering

Ability to analyze software specification in order to choose design patterns which ensure a systematic development process of a robust piece of software.

Systems Architecture

Experience and interest in distributed systems. Proven ability to design systems which optimize performance and scalability. Large scale thinking that leads to a robust software platform.

Agile Engineer

Goal-oriented with a wide skill set, seeking to contribute. Experienced success and failure with agile methodologies.

Technical

Relational DB (mysql, sqlite)

PHP

Java

Virtualization (KVM/QEMU)

Amazon Web Services (AWS)

git, svn, cvs

NOSQL (riak, mongodb)

Javascript (node.js, MEAN)

Linux, Unix, OSX, Windows

Experience

Nimboxx

Lead Software Engineer

05/2013-present

SCRUM team leader. Git branch maintainer. Responsible for software design and implementation of features such as: VM cloning and migration, high availability, support tunnel, distributed storage and cluster membership join / removal. Implemented features in php, c, python, and bash. Worked closely with following technologies: apache, openssl, riak, libvirt, kvm/qemu, collectd, corosync, pacemaker, sheepdog.

Texture Media Inc.

Senior Software Developer

06/2011-05/2013

Responsible for architecture and implementation of new features on multiple PHP web applications on a LAMP stack; application frameworks include: Yii, Cakephp, Wordpress, Vbulletin, and Lemonstand. Responsible for oversight of network security of web servers and applications. Migrated multiple applications from static hosting service to AWS and responsible for performance and maintenance of cloud servers. Use AWS API for scripts to deploy and scale web application servers. Employ machine learning techniques to implement a recommendation engine for users that is driven by the contents' subject, and the behavior of other users.

Sole Proprietorship - Freelance Developer

University of Texas

2010-2011

Created a full featured online course for the University of Texas Chemistry department. Used PHP with Codeigniter framework and MySQL database.

Long Island Taxi

Created an online cashiering web application for a livery taxi company in Long Island, NY

Google Summer of Code

2009-2010

Software Developer
2010

Contributed the Hidden Services feature to Java implementation of the Tor protocol (JTor).

2009

Developed multiple features for the Torbutton Firefox extension, including an HTTP header spoofer and a feature for selectively choosing cookies to use while browsing anonymously.

Graduate Assistant and Research Assistant

2008-2010

Villanova University

Research Assistant for Data Mining with Machine Learning graduate level course. Graduate teaching assistant for three Java based Algorithms and Data Structures classes and Ethics in computing class. Computer Science general tutor for 20 hours a week – included debugging programs in C, C++, Python, Ruby, Javascript, and Java. Worked with Dr. Mirela Damian on analyzing properties of ad hoc networks connected with various algorithms. Supported by NSF grant CCF-0728909; Presented findings at 2008 national Sigma Xi research conference^[1].

Education

Master of Science in Computer Science

Villanova University - Spring 2010

Bachelor of Science in Computer Science

Villanova University - Spring 2009

Other

US Amateur Radio License

Technician Class - Callsign: KORYK

Bibliography

[1] Kirk, Kory E. "Sigma Xi Scientific Research Abstracts" (2008):134. Presented at Sigma Xi Annual Meeting and Research Conference.

<http://www.sigmaxi.org/meetings/archive/abstracts2008.pdf>

[2] Kirk, Kory E. Genetic Algorithms and an Exploration of the Genetic Wavelet Algorithm. Villanova University. Ann Arbor: ProQuest, 2010.
