Konstantino Sparakis

(718) 508 2663

ksparakis@gmail.com

https://www.linkedin.com/in/sparakis

https://github.com/ksparakis/

COMPUTER ENGINEER

EDUCATION

Boston University

Expected September 2016

Bachelors, BS Computer Engineering

Minor, Business Administration

Expected December 2016

Masters, MS of Computer Engineering

FLUENT SPOKEN LANGUAGES

English, Greek & Spanish

AREAS OF INTEREST

Cloud Computing, Cyber Security, Distributed Systems, Embedded Systems, & Operating Systems

COMPUTER LANGUAGES

Asp .Net, Bash, C, C#, C++, CSS, Html, JQuery, Java, JavaScript, Node JS, Objective-C, Php, Python, Ruby, & SQL.

TECHNICAL SKILLS

AWS, Computer Architecture, Digital Logic, Docker, Full Stack Dev., IOT, Kernel Dev., Microprocessors, Mobile Dev., Object Oriented Programing, REST API's, Scrum, Unix Terminal, Virtualization

EXPERIENCE

Software & Security Eng. Intern

Lexumo | Boston, MA

March 2016 – present

Perfecting Lexumo's client software, which streams compilation data to their cloud infrastructure.

- Ensuring compatibility with majority of Unix Operating Systems, by creating portable binaries and adding static libraries.
- Restructuring and organizing client Python code for expansion to interpreting more languages.
- Improving GCC to clang translation.

Software Engineering Intern

Carbonite | Boston, MA

May 2015 – Jan 2016

Cloud Infrastructure Team

- Amazon Web Services
  - Finding limitations of AWS
  - Communicating with AWS support engineers for solutions.
  - Using Key Management Service for data encryption.
  - Researching Lambda and API Gateway for scalable backend.
  - Implemented method for using S3 bucket as a virtual hard drive within a private network using Avahi.
  - Researching & Implementing VPC for security.
- Writing scripts for customer usage analytics in Ruby and Bash.
- Researching and testing methods of recovering a physical machine from a cloud back up.
  - Booting from & modifying VHD image to inject software and scripts
- API design using Swagger.
- Created Microsoft PowerShell applets for multiple use cases.

Quality and Assurance Team

- Working with Jenkins to launch automated test suits in Amazon Web Services for backup hardware appliance product.
  - Ruby script that installs all software to emulate stands alone hardware on EC2.
  - Working with EC2 boot scripts.

PROJECTS

APEKIT: Android Vulnerability Analysis

Fall 2015

- Python Pipeline that reverses engineers Android APK's to source code, & statically analyzes for vulnerabilities.
- Analyzed over 1000 Android applications
- Discovered API keys including Amazon Web Service keys.

Sundial: Solar Unit Monitoring

Fall 2015- May 2016

- Hardware-to-Cloud solution for monitoring solar units power usage in rural Africa.
  - Created Custom PCB interfaced with zigbee like chip for star network communication that plugs into solar unit.
- Deployed for Oolu Solar in Senegal, Africa that manages 200+ rural villages and growing.
- Architected and Implemented Java Android application.
  - Sugar ORM for SQLite DB
  - LoopJ Asynchronous Http Methods Library for api communication.
- Assisted architecture of PostgreSQL DB data model & Restful API routes

ReClo: Cloud Disaster Recovery

Spring 2015

- Architected & implemented a proof of concept, in collaboration with Carbonite.
- Presented & Demoed in Massachusetts Open Cloud Conference
- C# Windows Clients
  - Backs up users' computer to Amazon Web Services S3 as a VHD image.
  - Restore client communicates with backend to start process of converting VHD image to an EC2 virtual machine in AWS, which connects back to user via vpn.
- Backend consists of Node JS Restful API, built using Express.

Ambios: Dynamic Ambient lighting for computer monitor

Spring 2015

- Used port sniffer to find protocol used by Prismatik software, which live captures color displayed on monitor and sends it via serial port to hardware.
- Using a Texas Instrument MSP430 microprocessor programmed in C & custom circuit design attached to Led Strips, emulated a Prismatik compatible device to intercept color information and display it on LED strip.

24 Hands: Embedded Systems

Spring 2015

- 7 Segment display created by moving a single clock hand into proper position.
- 24 Stepper motors controlled by custom logic circuit connected to a raspberry pi & Gumstix embedded processor.
- I2C communication between Gumstix and Raspberry pi
- Ti watch with accelerometer and RF communication sends commands of what to display via gestures.

Networking in the Physical World

Fall 2014

Collection of Internet of things Projects based off of Sun Systems Sun Spot microcontrollers.

- Report room temperature to cloud infrastructure and display live and historic data view via custom web interface.
  - Php backend with MySQL DB
- Using Radio Frequency Strength indicator for indoor localization with live web view
  - Matlab calculation for localization algorithms.
  - Java socket & Php – MySql Backend
- Controlling a servos car Wirelessly with a sunspot
  - Custom Android application to control car via Java Socket
- Created a wall following algorithm for servos self-driving automated car.