Joseph G. Lukasik

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EDUCATION

University of Wisconsin-Madison September 2012-Present

Degree: Bachelor of Science expected May 2016
Major: Computer Science and Mathematics, with a Physics certificate
GPA: 3.924 / 4.0

WORK EXPERIENCE

Linux Systems Administrator February 2014-Present

Student sysadmin at the Computer Aided Engineering Center

- Learned best practices for maintaining over 200 Debian virtual machines and servers for 11,000 engineering students and faculty members
- Gained experience working with a large legacy codebase of highly interconnected scripts (Perl, Bash) and dynamic system configurations (CFEngine, Icinga, FAI)
- Achieved a high level of proficiency working in a Unix shell environment

Camp Counselor Summer 2013

Counselor at ICE (Institute for Chemical Education) Summer Chemistry Camps

- Effectively communicated abstract chemistry concepts to middle schoolers by using concrete, relatable examples

RESEARCH

Undergraduate Researcher October 2013-Present

Collaborated with a peer under faculty advisors Saverio Spagnolie and Jean-Luc Thiffeault

- Studied the long-term dynamics resulting from symmetry-breaking surface interactions of swimming microorganisms, with applications in passive sorting and entrapment
- Invited to present at the Society for Industrial and Applied Mathematics (SIAM) Annual Meeting 2014 in Chicago, IL with our talk: "Billiard Motion of Microorganisms in Confined Domains"

CAMPUS INVOLVEMENT

Internet of Things Lab September 2014-Present

Developed a Google Glass app, "UW-Madison Augmented Reality Tour." Focused on implementing geospatial queries with a PostgreSQL+PostGIS database populated with OpenStreetMap data, using sensor readings from Glass to determine which building the user is looking at.

Crestwood Scratch Club September 2014-Present

Volunteered at a local elementary school to teach kids Scratch, an introductory programming language designed to teach the ideas of computational thinking

Mathematical Contest in Modeling February 2014

Researched, modeled, and wrote a paper on potential solutions to traffic flow problems in a team of three over the course of one weekend

Student Participants in Chemical Education Fall 2012-Spring 2014

Performed chemistry demonstration shows and hands-on activities for K-12 students

PROJECTS

Online Remote

Built a web app to control my apartment's TV using the Spark Core, a WiFi-connected microcontroller, powering an infrared LED (tv.jglukasik.com)

Snapchat Timelapse

Automatically created daily timelaspses of Madison's capitol building and posted it as a Snapchat "story" using a Raspberry Pi (snap.jglukasik.com)