J. LUKE STACK

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EDUCATION

Appalachian State University | Boone, NC Expected: December 2017
Bachelor's of Science in Computer Science with a Minor in Mathematics
GPA: 3.86 / 4.0

TECHNICAL SKILLS

Programming Languages	Java, Python, Go, JavaScript, C/C++, Scala, R
Tools/Technologies	Bluemix, Apache Spark, Cloud Foundry, Docker, Node.js, Express, Bootstrap, MySQL, Cloudant, HTML/CSS, Git, Arduino

EXPERIENCE

International Business Machines Corporation (IBM) January 2016 - July 2016
Co-op jStart Emerging Technologies

• Developed Proof of Concept applications running on IBM's cloud platform Bluemix, contributed to open source projects, created reference materials, evaluated IBM product offerings, implemented/maintained unique tools for cloud developers, and engaged with clients directly.
• Designed and implemented a Cloud Foundry CLI plugin to set up replication for multiregion applications using Cloudant databases on Bluemix.
• Constructed Node.js applications that consumed Bluemix service offerings and client REST APIs.
• Created reference Jupyter notebooks for internal training on Apache Spark data visualization.
• Built demo application with EclairJS, a library that submits Spark jobs from within Node applications.

Appalachian State University January 2015 - December 2015
Research Assistant / Instructional Assistant

• Performed guided research under the direction of the computer science faculty. Topics included signal source separation and data visualization for audio collected from monitored bee hives.
• Designed and implemented a graphical user interface to visualize a large collection of audio/video files.
• Defined a system to structure audio data in a fashion that allowed for quick data location and access.
• Graded for Database course teaching design, query creation, and representation of relational databases.

National Science Foundation (NSF) January 2014 - December 2015
Scholarships in Science, Technology, Engineering, and Mathematics Program (S-STEM)

• Received scholarship for being an exemplary student in Math and Computer Science. Worked on year-long team projects with faculty mentors, attended leadership workshops, and presented to NSF representatives.

PROJECTS

RGB LED Cube	Constructed a programmable cube of RGB LEDs powered by Arduino.
IPFS Python Client	Authored documentation, tests, and enhancements for the existing py-ipfs-api open source project.
Echonest applications	Re-implemented the InfiniteJukebox in Python and extended it to combine multiple songs into music mashups using the Echonest API.