

# Zachary Lawrence

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## WORK EXPERIENCE

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| JULY 2016 -<br>PRESENT  | <b>Google</b><br><i>Software Engineer</i> <ul style="list-style-type: none"><li>• Work directly with an external partner (Vera Institute of Justice) to build/maintain multiple datasets and visualization based on US incarceration data.</li><li>• Computed metrics using data-parallel pipelines and render them to dashboards.</li><li>• Developed software for Linux and Chrome OS based video conferencing devices.</li></ul> |
| JUNE 2015 -<br>AUG 2015 | <b>Facebook</b><br><i>Software Engineering Intern</i> <ul style="list-style-type: none"><li>• Worked with the New Technology Team under the Connectivity Lab (Internet.org).</li><li>• Researched uses of various wireless protocols and IoT devices.</li></ul>   |
| JUNE 2014 -<br>AUG 2014 | <b>Google</b><br><i>Software Engineering Practicum Intern</i> <ul style="list-style-type: none"><li>• Created a load testing framework based on HTTPS and RPC requests.</li></ul>   |
| JUNE 2013 -<br>AUG 2013 | <b>ITT Exelis: Geospatial Systems</b><br><i>Software Engineering Intern</i> <ul style="list-style-type: none"><li>• Designed and implemented a RESTful web service to provide advanced analytics for image management and manipulation within the Ozone Widget Framework.</li></ul>   |

## ACADEMIC RESEARCH

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| JAN 2016 -<br>MAY 2016 | <b>Audio Based Material Classification</b><br><i>Advised by Dr. Gilmer Blankenship, University of Maryland</i> <ul style="list-style-type: none"><li>• Researched and implemented signal processing and machine learning techniques for material classification based on an object's acoustic signature.</li></ul>   |
| AUG 2013 -<br>DEC 2015 | <b>Sidewalk Accessibility Issue Detection (Human-Computer Interaction Lab)</b><br><i>Advised by Dr. Jon Froehlich and Kotaro Hara, University of Maryland</i> <ul style="list-style-type: none"><li>• Parsed Google Street View images with OpenCV to find sidewalk accessibility issues.</li><li>• Visualized accessibility issues with Matplotlib, D3 and a custom Google Glass app.</li></ul> |

## TECHNICAL SKILLS

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LANGUAGES:	Java, Python, C, JavaScript, Matlab, LabVIEW, SQL
SOFTWARE PLATFORMS:	Linux, Robot Operating System, GCP, AWS
SOFTWARE FRAMEWORKS:	Data-Parallel Pipelines, Pandas, Matplotlib, OpenCV, HTTP APIs
WORKFLOW:	Git/Github, IntelliJ, Agile/Extreme Programming
HARDWARE:	Raspberry Pi, Arduino, Zigbee/Zwave (Wireless Protocols), Circuit Design

## EDUCATION

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MAY 2016 Bachelor of Science, Computer Engineering  
**University of Maryland, College Park**  
Gpa: 3.8/4.0 | Dean's List (All Semesters)