

# Drew Volz

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Education	<b>St. Olaf College</b> <ul style="list-style-type: none"><li>▪ <i>B.A. Computer Science</i></li><li>▪ <i>Undergraduate Coursework:</i><ul style="list-style-type: none"><li>▪ Computational Thinking in R and Python</li><li>▪ Algorithm Analysis and Data Structures</li><li>▪ Software Design and Implementation</li><li>▪ Programming Languages</li></ul></li></ul>		Graduated May 2016
	<ul style="list-style-type: none"><li>▪ Independent Research in Software Dev</li><li>▪ Ethical Issues in Software Design</li><li>▪ Mobile Web Graphics/Computing Apps</li><li>▪ Capstone: Tiled-Display Rendering</li></ul>		
Employment	<b>Lexmark                      Software Engineer II                      June 2016 – August 2018</b> <p>Technical Rotation Program which consists of three, eight-month rotations. During my three rotations I've worked on firmware flashing, mobile applications, and manufacturing automation.</p> <p><i>Manufacturing Automation Systems Engineering Team</i> (November 2017 – Present)</p> <p>As a member of the MASE team my responsibilities include:</p> <ul style="list-style-type: none"><li>▪ Developing web-based status screen system to run the manufacturing facility.<ul style="list-style-type: none"><li>▪ Web development in React, PHP, and SQL.</li><li>▪ Implementing a websocket-based API between client and manufacturing servers.</li></ul></li></ul> <p><i>Mobile Applications Team</i> (February 2017 – October 2017)</p> <p>As a member of the Mobile Apps team my responsibilities included:</p> <ul style="list-style-type: none"><li>▪ Developing the Lexmark Mobile Setup Assistant application.<ul style="list-style-type: none"><li>▪ iOS development in Objective-C.</li><li>▪ Android development in Java.</li></ul></li><li>▪ Implementation of wireless out-of-box printer configuration.</li></ul> <p><i>System BIOS Team</i> (June 2016 – January 2017)</p> <p>As a member of the System BIOS team my responsibilities included:</p> <ul style="list-style-type: none"><li>▪ Designing, implementing, and debugging firmware for laser printers.</li><li>▪ Implementing a command-line firmware flashing tool.<ul style="list-style-type: none"><li>▪ Firmware development in C and C++.</li></ul></li><li>▪ Maintaining firmware flashing update GUI to Apple AirPrint spec.</li></ul>		
	<b>Lexmark                      Software Engineer, Intern                      May 2014 – September 2015</b> <p><i>Mechanical Engineering Services Team</i></p> <p>As a member of the MES team my responsibilities included:</p> <ul style="list-style-type: none"><li>▪ Developing web applications for use in process manufacturing.<ul style="list-style-type: none"><li>▪ Web development in PHP, HTML, and SQL.</li><li>▪ Producing real-time visualizations of large manufacturing datasets.</li><li>▪ Providing custom tools to manage the manufacturing line.</li></ul></li></ul>		
Projects	<b>All About Olaf and CARLS – Mobile Apps</b> <ul style="list-style-type: none"><li>▪ Unofficial mobile apps for St. Olaf and Carleton College.</li><li>▪ iOS and Android development in React Native.</li><li>▪ Testing, continuous integration with CircleCI and Travis.</li><li>▪ Open Source, published on Apple App Store and Google Play Store.</li></ul> <p><b>Tiled-Based Display Rendering</b></p> <ul style="list-style-type: none"><li>▪ Successfully designed a coherent display to model large data across many computers.</li><li>▪ Defined a format for uniformly configuring computers to communicate and share data.</li><li>▪ Calculated the limitations of network, software, and hardware used.</li></ul> <p><b>Picasso — Steganographic Text/Image Encryption</b></p> <ul style="list-style-type: none"><li>▪ Designed a software utility that can translate Portable Pixmap Format (PPM) files to Scheme.</li><li>▪ Developed a method for encoding ASCII values into RGB values inside image pixels.</li></ul> <p><b>Other Projects:</b></p> <ul style="list-style-type: none"><li>▪ <b>KSTO Radio:</b> iOS App which provides live-streaming radio from 93.1 FM KSTO.</li><li>▪ <b>Traffic Cams:</b> iOS and Android app to view live-streaming traffic cameras in Lexington, KY.</li></ul> <p><b>Languages &amp; Technologies:</b> C, C++, Java, Python, JavaScript, Objective-C, PHP, HTML, SQL, R</p>		
Philanthropy	<b>Haiti Health Initiative</b> (January 2017 and 2018) <b>Praying Pelican Missions</b> (June 2011)		
	<b>Habitat for Humanity</b> (April 2008) <b>Casas Por Cristo</b> (November 2006, July 2007)		
	<b>Christ the Servant Missions</b> (July 2008 and 2009) <b>Boulder Homeless Shelter</b> (2004 – 2010)		