

## TECHNICAL SUMMARY

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	Some Experience	Proficient/Professional
<b>Languages</b>	C++, Objective C, Rust, Haskell, <i>Mathematica</i> , Common Lisp/Scheme/Clojure, SQL	C, C#, Java, VB6, JavaScript, TypeScript, M, Python, Bash, <i>Emacs</i> Lisp, $\text{\TeX}$ , <code>exp13</code>
<b>Software</b>	Adobe <i>After Effects</i> , <i>Premiere Pro</i> , and <i>Audition</i> , <i>Audacity</i> , <i>Eclipse</i>	<i>Emacs</i> , <i>git</i> , <i>TortoiseSVN</i> , <i>Travis CI</i> , Microsoft Office Suite, <i>Visual Studio 2008–2017</i>
<b>OSes</b>	RHEL 5/6	*nix shell, Windows

Excellent communication skills, both written and oral, with experience in literate programming.

## SELECTED PROFESSIONAL EXPERIENCE

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Software Developer II  
 Jan 2015–(Current)  
[Epic Systems](#)  
 Verona, WI

Full-stack developer working with M and VB6 transitioning to a new ASP.NET-based platform (M, C#, JS, and TS), designing with customers for the future and solving real problems while keeping them successful with their existing implementation.

- Maintain and extend a complex, NoSQL database with multiple concurrently-supported versions. Implement multiple data model conversions to support current and future technical needs (M).
- Responsible for a major, integrated component of our software over entire tenure—with many projects spanning the course of several months (M, VB6, C#, JS, TS).
- Work closely with other teams to provide a consistent user experience.
- Work with core infrastructure teams to design and implement developer tooling—including a new TypeScript-based language that compiles to M.
- ★ Lead a cross-role effort to streamline our team's use of automated testing and overcome technical challenges specific to our domain. Establish team-wide processes.
- ★ Establish team-wide processes to ensure our customers receive high-quality out-of-the-box configuration.
- ★ Develop and teach a curriculum based on C# for co-workers with no prior programming experience.

Junior Software Dev.  
 June 2014–Jan 2015  
[General Dynamics](#)  
 Fairfax, VA

- Maintain/enhance existing solutions using X window programming (C/C++).
- Redesign graphics foundation layer to adhere to best practices in OO (C++).
- Consolidate duplicated logic and functionality into an NFS mount manager (Bash).

## SELECTED EDUCATION AND ACADEMIC EXPERIENCE

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Computer Science, B. A.  
 G. P. A./Major: 3.6/3.9  
[St. Mary's College](#)  
 2010–2014  
 Lexington Park, MD

**Coursework** *Data Structures and Algorithms*, *Design and Analysis of Algorithms*, *Theory of Computation*, *Programming Languages*, and *Small-Scale Computing*

**Honors** Dean's List (G. P. A.  $\geq 3.5$ ) each semester; Senior Award in Computer Science

**Research** Worked under Dr. Alan Jamieson in simulating self-stabilizing algorithms. See <http://github.com/vermiculus/ssa-tool>.

**Abroad** Studied abroad at [University College Dublin](#) in the Republic of Ireland. Worked with Dr. Pádraig Cunningham researching named-entity recognition and social network analysis in English literature. (Jan–May 2013)  
 See <http://github.com/vermiculus/snael>.

## SELECTED OPEN SOURCE CONTRIBUTIONS AND PRO-BONO WORK

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In addition to various contributions to other projects (ranging from simple typos to small/substantial fixes and enhancements), I also maintain many projects of my own on GitHub ([@vermiculus](#)). I find great enjoyment in enhancing developer toolsets and workflows.

<a href="#">Magithub ★565</a>	<a href="#">vermiculus/magithub</a>	<i>Emacs</i> Lisp
A Magit-based GitHub client for <i>Emacs</i> (succeeded by <a href="#">Forge ★479</a> )		2016 – (maint)
<a href="#">API-Wrap ★43</a>	<a href="#">vermiculus/apiwrap.el</a>	<i>Emacs</i> Lisp
A set of Lisp macros to wrap REST APIs with generated functions		2016 – (maint)
<a href="#">EMake ★18</a>	<a href="#">vermiculus/emade.el</a>	<i>Emacs</i> Lisp
A build system for <i>Emacs</i> packages in pure <i>Elisp</i> /Make		2016 – (maint)
<a href="#">SX ★622</a>	<a href="#">vermiculus/sx.el</a>	<i>Emacs</i> Lisp
A StackExchange client for <i>Emacs</i>		2013 – (maint)
<a href="#">ssa-tool</a>	<a href="#">vermiculus/ssa-tool</a>	Python, NetworkX, PyYAML
An editor for and simulator of self-stabilizing algorithms		2013 – 2014
<a href="#">S.N.A.E.L.</a>	<a href="#">vermiculus/snael</a>	(NLTK) Python
A natural language analyzer that constructs social networks		Jan – May 2013
<a href="#">AUCTeX-Lua</a>	<a href="#">vermiculus/auctex-lua</a>	<i>Emacs</i> Lisp
An extension to AUCTeX to support embedded Lua code		Aug 2013
<a href="#">ButterSeal</a>	<a href="#">vermiculus/butterseal</a>	(LibGDX) Java
An Android game written for <i>Game Design and Development</i>		Sept – Dec 2013
<a href="#">LDA/SMC Website</a>		WordPress, discountASP
A new website for the local Learning Disabilities Association		March 28 – 30 2013

## PERSONAL INFORMATION

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- Experienced user of and contributor to L<sup>A</sup>T<sub>E</sub>X, a system used to produce documents of high quality and typographical consistency.
- Formerly an official representative of [StackExchange](#) to the international T<sub>E</sub>X User's Group.
- Edited and produced a promotional video for a [diversity program](#) at St. Mary's College (archived).
- Maintain/contribute to several [open-source projects](#) using more conventional languages, such as *Emacs* Lisp, Python, Java, C, and Objective C. (Contributions include testing, discussion, design, and actual code.)

## RELEVANT INTERESTS

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I have several interests in which I have no formal training, but have some experience. These include:

- structured documents, especially in the context of ↓
- custom electronics and embedded systems,
- literate programming – a documentation-centric paradigm
- language design/development, and
- for software development and reproducible research,
- typography.

Additional details on my projects and interests can be found at <http://www.seanallred.com>.