

TECHNICAL SUMMARY

	Some Experience	Proficient/Professional
Languages	C++, Objective C, Rust, Go, Haskell, SQL, Common Lisp/Scheme/Clojure, <i>Mathematica</i>	C, C#, Java, VB6, JavaScript, TypeScript, M, Python, Bash, <i>Emacs</i> Lisp, \TeX , <code>exp13</code>
Software	Developer tools for <i>Chrome</i> , <i>Edge</i> , and <i>Firefox</i> , <i>GitLab</i> , <i>Eclipse</i> , <i>MySQL</i> , <i>PostgreSQL</i>	<i>Emacs</i> , <i>git</i> , <i>TortoiseSVN</i> , <i>GitHub</i> , <i>Travis CI</i> , Microsoft Office Suite, <i>Visual Studio</i>
OSes	RHEL 5/6	*nix shell, Windows

Excellent communication skills, both written and oral, with experience in literate programming and regularly authoring development designs for technical and non-technical audiences.

Looking for ethical, meaningful, and valuable work that does good.

SELECTED PROFESSIONAL EXPERIENCE

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

Full-stack developer working with M and VB6 transitioning to a new, proprietary ASP.NET-based platform (M, C#, JS, and TS), designing with customers for the future while keeping them successful in their existing implementation. Our software is the nervous system for healthcare providers both domestic and abroad—with records for well over half the U.S. population.

- 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 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

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

Thesis 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

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.

Magithub ★565	vermiculus/magithub	<i>Emacs</i> Lisp
A Magit-based GitHub client for <i>Emacs</i> (succeeded by Forge ★479)		2016 – (maint)
API-Wrap ★43	vermiculus/apiwrap.el	<i>Emacs</i> Lisp
A set of Lisp macros to wrap REST APIs with generated functions		2016 – (maint)
EMake ★18	vermiculus/emade.el	<i>Emacs</i> Lisp
A build system for <i>Emacs</i> packages in pure Elisp/Make		2016 – (maint)
SX ★623	vermiculus/sx.el	<i>Emacs</i> Lisp
A StackExchange client for <i>Emacs</i>		2013 – (maint)
ssa-tool	vermiculus/ssa-tool	Python, NetworkX, PyYAML
An editor for and simulator of self-stabilizing algorithms		2013 – 2014
S. N. A. E. L.	vermiculus/snael	(NLTK) Python
A natural language analyzer that constructs social networks		Jan – May 2013
AUCTEX-Lua	vermiculus/auctex-lua	<i>Emacs</i> Lisp
An extension to AUCTEX to support embedded Lua code		Aug 2013
ButterSeal	vermiculus/butterseal	(LibGDX) Java
An Android game written for <i>Game Design and Development</i>		Sept – Dec 2013
LDA/SMC Website		WordPress, discountASP
A new website for the local Learning Disabilities Association		March 28 – 30 2013

PERSONAL INFORMATION

- Experienced user of and contributor to \LaTeX , a system used to produce highly consistent documents.
- Formerly an official representative of [StackExchange](#) to the international [TeX User's Group](#).
- Big DIYer for home improvement projects (organization, shelving, plumbing, custom furniture).
- Long-time lover of big-band jazz – I've played valve trombone for over a decade (most recently at [MATC](#)).
- Enthusiastically hiking the [Ice Age Trail](#) (at least when it's warm enough to bring liquid water).
- Edited and produced a promotional video for a [diversity program](#) at St. Mary's College (archived).
- Believer in continuing education and constant curiosity.

RELEVANT INTERESTS

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 for software development and reproducible research,
- language design/development, and
- typography.

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