

# Daniel Billotte

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Software Engineer / Data Scientist / Craftsman

## Introduction

**Creativity:** Over the last 20+ years I have programmed in different fields, in different paradigms (assembly, procedural, OO, functional, reactive, etc), in many different languages, on many different operating systems and hardware platforms; this experience combined with a natural inquisitiveness and sense of adventure often leads to novel and creative solutions not only in software but also in the physical and human environments where software exists.

**Execution:** Through thoughtful planning, working with other talented people and teams, focused work, creative problem solving, and sometimes, sheer stubborn-ness, I have a long track record of successfully completing big projects.

**Teamwork:** In my experience, great software is written by great teams and I enjoy the challenge of team building as much as that of being an individual contributor. I have managed teams in the U.S. and abroad and am known to be a cross-team facilitator. Even when working in a sole-contributor capacity, I usually end up involved in some aspect of team leadership or organization, even if it's just curating the documentation ;-)

## Skills

- Comfortable developing for \*nix, Windows, OSX/iOS, Android, Arduino, other
- Experienced with sql/no-sql dbs, data warehouses, big data, ETL processes
- Data Science: data analysis, visualization, machine learning, neural networks
- Experience handling sensitive/confidential information, implementing OWASP security practices, and hardening systems to meet SOC II and HiTrust audits
- Familiar with most common web development methodologies and frameworks: server-rendered, client rendered, MVC, microservices
- There is no "impossible", only limits to resources, creativity, and tenacity
- I enjoy giving formal and informal presentations on relevant topics and working with users and other non-technical stakeholders to ensure that everybody is on the same page

## Experience: Latest

### Principal Instructor

**Galvanize, Inc. - Denver, CO - October 2020 -> August 2021**

I helped to launch a new line of live classes targeted at more experienced developers. As part of a small team, I helped to design several of our courses, setup infrastructure for the courses, and then lead several cohorts through classes on:

- Algorithms and Data Structures (JavaScript, Python)
- Microservices and Orchestration (JavaScript)
- Networks and Reactive Programming (C, JavaScript)

## Inter-webs

Email : [daniel@litfuze.com](mailto:daniel@litfuze.com)  
GitHub : [github.com/dgbillotte](https://github.com/dgbillotte)  
Blog : [zerolab.dgbillotte.com](https://zerolab.dgbillotte.com)  
LI : [linkedin.com/in/dgbillotte/](https://linkedin.com/in/dgbillotte/)

## Languages

- |              |               |
|--------------|---------------|
| - C/C++      | - Objective C |
| - Python     | - Ruby        |
| - PHP        | - TCL         |
| - JavaScript | - Perl        |
| - Elixir     | - Bash/Zsh    |
| - Java       | - HTML        |
| - C#         | - CSS         |

## Narrow Skills

- Cloud Ready: AWS, IBM, Google
- MySQL, Postgres, SQL Server
- Memcached, Mongo, Redis
- API design & integration, REST
- Automate everything!
- Graph algorithms :-)
- Digital signal processing
- Writing audio plugins
- Full stack system-admin
- Awesome dad-jokes!

## Education

Coursera Online

- IBM Data Science Professional Certificate : 2021
- Audio Signal Processing for Music Applications : 2019
- Stanford Machine Learning 101 : 2016

Certified Scrum Master : 2012

B.S. Computer Science  
Arizona State University  
2003

## Experience: 2008-2020

### Data Scientist / Director of Technology

**Green Light Cost Management - Scottsdale, AZ - November 2015 ⇒ March 2020**

As a Data Scientist:

- Designed and built a neural network system to help guide medical claim negotiations (Python, Keras)
- Created several different web applications to expose parts of our backend system directly to our clients (PHP/Laravel, JavaScript/jQuery)
- Designed and implemented our “client dashboard” tool to allow our clients to slice/dice/drill into their healthcare spending to identify areas for improvement and savings (PHP/Laravel, Elixir/Phoenix, JavaScript/jQuery/React)

As the Director of Technology:

- Worked with the COO to plan out, recruit/hire, and onboard the rest of the engineering team
- Worked with all staff to plan and oversee the moving of our entire system from on-prem to completely cloud based and able to stand up to Soc 2 (Type II) and HiTrust audits
- Served on the Security Strategy Group which had oversight over the system re-architecture, interfacing with auditors, and all other security related matters
- Worked with clients and stakeholders at all levels to plan out integrations, get projects up and running, and to diagnose and fix technical problems as they arose

### Curriculum Developer / Lead Instructor

**RockIT Bootcamp - Tempe, AZ - Feb 2014 ⇒ December 2015**

- Led the development of curriculum and schedule for a 12-week, 40 hour/week web development bootcamp that covered HTML, CSS, PHP/Laravel, JavaScript/jQuery, and MySQL
- Led the instruction of the beta cohort and then 4 more cohorts

### Senior Software Engineer

**Meltmedia - Tempe, AZ - November 2012 ⇒ August 2013**

- Worked with a product manager and an analyst to produce requirements and an implementation plan for a rush project for our largest client
- Built the above system with one other engineer. Though we had hurdles, it was on time, on budget and worked as designed, much to the delight of our client. (Groovy/Grails, JavaScript/jQuery)

### Senior Software Engineer

**Oce Reprographic Technology - Phoenix, AZ - March 2010 ⇒ September 2012**

- Built two internal tools for a sister company who has to write low-level drivers for every high-end printer that comes to market. These tools automated the more redundant parts of their jobs, cutting the amount of code written in half (C++ & C#)
- Participated in the development of a globally-used, web-based document and workflow management system that reprographic shops used to manage their businesses, in many cases replacing pen & paper systems (C#, JavaScript/Dojo)

### Director of Engineering and Co-Founder

**Novus Life Solutions - Gilbert, AZ - August 2008 ⇒ May 2010**

- Built a back-end system for handling credit-card processing, order fulfillment, and customer support
- Managed two designers and built a skin-able web front end that we deployed for 3 different nutrition-related product sales sites (PHP/CodeIgniter, JavaScript/Prototype)
- Worked with biz-dev on SEO and to plan out and implement web ad-based marketing campaigns
- Handled the majority of IT needs: hosting, server/database configuration, deployments, monitoring, etc.

## Experience: 1998 - 2008

### Engineering Manager / Senior Software Engineer

#### **Simply Hired - Mountain View, CA - January 2005 ⇒ August 2008**

- Managed a team of 10 engineers building data-capture robots while designing and building a system to keep robots running 24x7, while providing monitoring and metrics about system and robot health (Perl)
- Designed and managed the implementation of an incoming feed handling system to supplement the jobs we captured from scraping (Ruby/Rails, JavaScript/jQuery)
- Implemented a data-analytics solution for traffic to our web properties and provided traffic data and reports to our biz-dev, sales, and executive teams (Perl)
- Regularly worked with the IT/Ops team to help out with major colo reconfigurations, as well as to automate processes, simplify deployments, integrate different pieces of software, and process and analyze large data sets
- Worked with Biz-Dev and IT to select a commercial web-analytics solution, negotiate a rock-bottom license contract, and then implement the vendor's software in our organization

### Software Engineer / Field Engineer

#### **Envirosure Solutions, LLC - Tempe, AZ - September 2002 ⇒ January 2005**

- Designed and built a chemical inventory and reporting system that was used to track the chemical inventories of our customers. The reporting side of it was used to create reports for city, county, state, & federal agencies as needed on a regular basis or if there was a spill, fire, or other disaster. Additionally, it created inventory maps that were used by the fire department in case of fires. (MS Access & C#)
- Various field work such as surveying properties, safety inspections, and responding to spill and disaster situations to sample wastes and analyze discharge paths

### Senior Software Engineer

#### **Netscape/AOL - Mountain View, CA - January 1999 ⇒ September 2001**

- Worked on small team to design and build a mailing list engine used by Netscape and AOL products (C++ & Java)
- Created a C/C++ networking interface layer that allowed Netscape and AOL products and services to communicate (C/C++)
- Participated in rearchitecting and rewriting the AOL Groups product with support for i18n/l10n for most countries on earth (TCL, Java)
- Team lead for building the AOL Quizzes/Polls product (Java)

### Software Engineer

#### **AtWeb - Mountain View, CA - May 1998 ⇒ December 1998**

- Led one other engineer to design and build a mailing-list system that allowed users to create mailing lists for their websites (Perl)
- Designed and implemented a state-machine based OO application framework that allowed us to create new products more quickly and with fewer "copy/paste/rename" bugs (Perl)

Further experience can be viewed on my LinkedIn profile.