

# Thomas Gordon Lowrey IV

Software Engineer / Systems Architect / Server & Database Admin / Manager

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## Summary

I'm a very strong enterprise architect and leader.

I have extensive experience designing, building, and maintaining highly available, high load front-end and back-end infrastructures, and have experience managing and working in teams both small and large.

The depth of my acumen is battle hardened through many years of experience at all levels of the software development lifecycle and every slice of the stack.

- 17+ years of systems administration experience.
- 15+ years of application development experience.
- 10+ years of systems architecture experience.
- 8+ years of management/leadership experience.
- Excellent written and verbal communication skills.

## Expertise

Industry Knowledge	Architecture, Cloud Computing, Communication Protocols, Data Architecture, Data Integration, Database Analysis, Data Warehousing, Embedded Development, ETL, Hardware Development, Hardware Diagnostics, Information Security, iOS Development, Linux Server Administration, Network Security, OOP, Project Management, Release Management, Server Administration, Server Architecture, Solution Architecture, System Architecture, Unix Administration, Version Control, Web Applications, Web Servers
Tools & Technology	Amazon Web Services (AWS), AngularJS, C, Git, Golang, Google Cloud, JavaScript, Mercurial, MicroPython, MongoDB, MQTT, MySQL, NGiNX, Objective-C, Open Source, Perl, PHP, Protocol Buffers, Python, Redis, Ruby, Scala, SOAP, SQL, SVN, XML, ZFS
Other Skills	Analytics, Email Marketing, Mass Mailing, Multivariate Testing, Information Security, Penetration Testing, Product Development, Reverse Engineering, Security Auditing, Technical Requirements Gathering, Web Application Security

## Recent Experience

### Unite Us

Nov 2019 - Nov 2020

### Senior Architect

During my time at Unite Us I wore many hats. I was brought in, initially, without a clearly established position or set of goals. I digested the existing infrastructure and systems, and the history that brought them to the current state, to fully understand all the components and subsystems, and worked to push the technology vision for Unite Us into the future. I analyzed existing systems and built plans and RFCs with the goal to push the architecture towards a high performing system that would support future growth and unforeseen business needs, while meeting near-term requirements.

My goal was initially to push for domain models and business process modeling to help reconcile differences in perspective among teams and stakeholders. By the end of my time with Unite Us, I was working primarily with our data team, and I was able to leave the company with a robust and reusable data architecture built around abstracted statically typed data models and code generation for our core languages. I built tooling to transform Ruby code into Python, to ease the burden of data management for our core teams, and built a robust and generative validation layer using Scala models with static typing and code generation for our primary languages: Ruby/Go, and Scala/Python. I left my team with a reusable set of hooks/functions to transfer data from PostgreSQL, using PL/pgSQL and PostgreSQL extensions, to automate data transfers to our raw data lake without a need for external orchestration. I was able to successfully automate most of the heavy code refactoring work, to move data handling from Ruby to Python, using vim macros and sed scripts to accelerate our throughput and pace.

I believe deeply in the vision and purpose of Unite Us and I am confident that I left my team with the tools, techniques, and ideas needed to excel and outperform, and I am proud to have left things in an objectively better state than when I joined the data team; I look forward to their success.

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**Freelance**

2004 - Current

*Systems Architect  
Software Engineer  
IT Consultant*

Primary areas of focus are on software architecture, server and application optimization, custom development, and general IT consulting. I've been doing this successfully for years and I can pretty much do it all. I specialize in development, server administration and performance optimization. I can help you with any step of the development process from brainstorming/planning, to design, development and building/maximizing traffic, performance optimization, and split testing. I develop clean, easily extensible code, and utilize the right frameworks for the job, minimizing development time. I can get it online fast! I prefer large scale projects, but am willing to help with just about anything.

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**Protean Ventures**

Dec 2014 - Nov 2019

*Chief Solution Architect  
Principal Software Engineer  
Manager / Team Lead*

Protean is a multi-tenant compliance, inspection, and data analysis platform. I solely architected and developed the full MVP, including the backend, frontend, mobile application and data collection hardware, and led a globally distributed team to extend and maintain the product. Our clients included many top fortune 500 companies, multiple top 50, and one of the top 5. I regularly met directly with our clients to ensure their needs were being met and communicated to the team. I got to work on many fun and unique projects, like data collection from custom embedded devices that I designed and built, to interface with proprietary fueling systems that I had to reverse engineer, and was able to build a data parser using technical specs that had no competition in the industry; those capabilities simply didn't exist prior.

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**Three Screens Studio**

May 2013 - Jun 2017

*Senior Systems Architect  
Chief Software Engineer  
Manager / Team Lead*

3 Screens was a software development firm, focused on data-driven design and development. We leveraged the latest technologies in iOS and Android platforms, as well as responsive web design and development practices, to reach users in an integrated, multi-screen environment. I oversaw the design and development of many successful custom enterprise applications, while also acting as team lead for other projects. Other duties varied, ranging from requirements collection and hiring, to server administration and custom IT consultation.

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**Mob Science**

Apr 2012 - Jan 2013

*Senior Systems Engineer  
Senior Systems Architect*

Developed internal company tools for management of XML game configuration and assets (CMS). Technologies utilized include PHP Codeigniter, ORM, Percona MySQL, RESTful API, Javascript MVVM (KnockoutJS/jQuery), Perl, and Python.

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**Instant Checkmate**

Feb 2011 - Apr 2012

*Senior Systems Architect  
Senior Software Engineer  
Release Manager  
Server / DB Admin*

Primary duties included building and maintaining a mesh dedicated and cloud architecture consisting of NGiNX and PHP-FPM clusters, Percona multi-master/slave servers, a high-volume mail server (millions of messages per month), and assorted servers for the development team. I also oversaw developer workflows, assisted with conflict resolution, and managed releases. Other duties included development tasks, systems architecture and third-party data integration (ETL). We steadily grew month over month since the start of my employment to become a top-1000 website.