

Tommy Allen

Software Engineer

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About

18 years of professional experience as a software engineer with a high attention to detail, particularly in usability.

The time I've spent with various languages, frameworks, and technologies leaves me well suited to architect and build almost anything ranging from simple backend automation tools to complex multi-server web applications. I am known for being pragmatic and effective with limited resources, which has contributed to my success in startup environments.

Skills

Programming

- Python, +16 years
- Javascript, +19 years
- CSS/HTML/HTML6, +18 years
- PHP, +19 years
- Shell Scripting, +23 years
- C, +7 years
- Java, +6 years
- Objective-C, +6 years
- Go, +5 years
- C#, +4 years

Technology

- Git, Mercurial
- PostgreSQL
- MySQL
- Cassandra
- ElasticSearch

- Solr
 - Redis
 - Memcached
 - Docker
 - Varnish Cache
 - Unity3D
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Work Experience

Game-U

Chief Technology Officer

2018 - Present

<https://www.game-u.com>

GAME-U is an after school program designed by Game Industry Professionals which teaches kids how to design and build their own video games and robots.

- Make decisions about the use and integration of various technologies that drive the company's growth
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Truman ETC

Consultant

2017 - Present

Truman ETC is an online retail site that caters to physical shop owners who don't have the time or resources to bring their products online.

Rank & Style

Consultant

2017 - 2018

<https://www.rankandstyle.com>

In May 2016, Rank & Style was acquired by Facebook Global VP, Blake Chandlee and a team of Austin-based entrepreneurs. As the former CTO, I have been asked to consult on the technology roadmap.

- Employee onboarding
 - System maintenance
 - System architecture guidance
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Parkside Bikes

Digital Partner

2016 - 2017

<https://www.parksidebikes.com>

Parkside Bikes is an award winning full service bicycle shop in Louisville, KY stocking one of the largest inventories around. Including road, mountain, commuter and hybrid as well as an extensive used bike and used parts inventory.

- Partnered with Parkside to build a stronger online presence
- Rebuilt website using Django and the Wagtail framework
- Task automation

Rank & Style

Chief Technology Officer

2013 - 2016

<https://www.rankandstyle.com>

Rank & Style, winner of Fashion Tech Forum's "Founders of the Future" 2014 Challenge, is a fashion tech startup that simplifies the shopping experience by presenting data-driven rankings of the best fashion & beauty products.

- Built initial MVP in 2012; lead to full-time CTO role one year later
- Oversaw and developed the initial tech stack (Apr 2013) and full redesign (Sep 2014)
- Built initial beta algorithm for product ranking; worked closely with our Data Scientist to standardize data pipelines, as well as optimize our machine learning code and product ranking algorithm
- Designed and built a data acquisition and normalization system which processes approximately 40GiB of product data per day
- Created a custom CMS to speed up the content creation process using AngularJS, Python (Django), and OpenCV
- Advised on the company's use of technologies and third party services; participated in tech related conversations with potential partners and investors
- Managed Data Scientist and other tech freelancers on multiple projects
- Oversaw the deployment and maintenance of servers
- Day to day management of the website (frontend and backend)
- Created various tools, on-demand, to reduce the workload of our team members

Something Awful

Full Stack Developer

2012 - 2013

<https://www.somethingawful.com>

Something Awful is a comedy website featuring a wide variety of content such as movie reviews, videos, and photoshopped images. It has a fairly large community and is known for being one of the oldest and most influential on the web.

- Reconfigured the network and closed many potential attack vectors
- Reduced the number of mission-critical servers from 13 to 6
- Made enormous speed improvements to their large forum by rewriting key pieces of PHP code and introducing a 10GiB memcached pool using existing hardware

- Introduced a reliable code staging and deployment system
 - Moved their (very large) email services to Google Apps
 - Found and fixed many old bugs that had been accepted as unfixable
 - Maintained the store's PCI Compliance
 - Rewrote the main website's code to use proper reusable templates
 - Introduced VPN to their system instead of relying on large IP whitelists in iptables
 - Worked closely with the Ad manager to improve the speed and quality of ads served on the site
 - Migrated the majority of Flash videos to HTML5 Video formats
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Autodemo

IT Director

2000 - 2011

<https://www.autodemo.com>

Autodemo is multimedia company that specializes in B2B and B2C software demonstration videos.

- The fourth employee hired by Autodemo
 - Worked closely with producers to accommodate the special requests of clients such as: eBay, Microsoft, Google, Oracle, Nordstrom, and Sears
 - Developed an internal project management system and client review portal that Autodemo has used for over a decade
 - Developed proprietary video controls, allowing Autodemo to deliver a product that could be branded and customized to match their clients' corporate image
 - Reverse engineered the SWF format to alter compiled ActionScript code and pack arbitrary files (vcard, pdf, etc) within the SWF to get around file hosting restrictions imposed by CMS's
 - Developed numerous workflow automation tools for Flash and Photoshop
 - Advised on the company's use of technologies and third party services
 - Actively researched new technologies and standards to discover new ways to enhance Autodemo's existing products and potentially develop new ones
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Independent Work

Game-U

2017

<http://www.game-u.com>

Due to their recent growth, GAME-U needed to streamline their billing process—paper statements and invoices being a significant portion.

- Overhauled event management system.
 - Created tools for generating invoices and capturing signatures.
 - Created tools for tabulating data from paper statements using Tesseract OCR.
 - Custom reporting.
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inSensify

2017

<http://insensify.com/>

Joined a team that created a Hololens AR app for neurosurgeons.

- Created a custom A/V server using Go
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Neovim

2017 - Present

<https://github.com/neovim/neovim>

Neovim is an open source project that seeks to aggressively refactor Vim.

- Core team member
 - Avid user and tester
 -  Neovim
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Game-U

2016

<http://www.game-u.com>

Developed a custom WebDAV server and RFID card reader using the Go programming language.

- Cross platform
 - RFID reader allows children and staff to login and mount network shares via WebDAV
 - RFID client authenticates cards over HTTPS allowing Game-U to centrally manage user accounts for multiple locations
 - WebDAV server runs on a variety of OSes (Windows, Linux, Mac, FreeBSD) giving each location flexibility in choosing NAS hardware
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Parkside Bikes

2013 - Present

<https://www.parksidebikes.com>

Digital operations consultant

- SEO
 - Automatic, random Yelp and Google reviews on the website
 - Using Django to maintain their online inventory
 - Parsing historical NOAA data to correlate sales figures with weather patterns
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Autodemo

2012

<http://www.autodemo.com>

Developed an iPad app to display Autodemo videos, allowing clients sales representatives to become more mobile at conferences and conventions.

- Kiosk mode
 - Downloads demo packages from Autodemo's servers
 - iTunes App Store Page
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NeverNull

2012

<http://www.nevernull.com>

Prototype iPad Game Developement

- Network protocol
 - Network debugging tools
 - Sprite layering, tinting, and rendering
 - Basic AI (A* path finding)
 - Procedural isometric map rendering
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Something Awful

2010

<https://www.somethingawful.com>

Worked with Something Awful to create special feature Flash content on their website.

Gaming Guyz Game

- Short piont-and-click game
- Consulted and contributed code on game mechanics

Santa Clause Playset

- Created in two day sprint using Adobe FLEX
 - Coordinated with artist to modularize graphics
 - Created interface for layering, resizing, and rotating graphic pieces
 - Sharable links that allowed other users to modify creations
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8664.org

2005 - 2010

<http://www.8664.org>

8664.org is a movement to remove a portion of highway I-64 from the waterfront. The site was created to gain support for the movement and keep interested people informed.

- Created the original site, then later ported the site and its content to the MoveableType blog system

- Created a system for accepting donations
 - Sent out monthly newsletters
 - General site maintenance and updates
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Interests

- General Computer Science
 - Automation
 - Network Programming
 - Web scalability and performance
 - Science
 - Electronics
 - Woodcraft
 - Neovim
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