

# Matt Way

Software Engineer, Architect

New York, NY  
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<https://mway.work/>

Experienced, pragmatic, results-oriented engineer focused on building reliable, real-time, high-performance, mission-critical platforms at scale.

## EXPERIENCE

### Uber, Software Networking — Staff Software Engineer

New York, NY — Feb 2022 - Present

- Responsible for Uber's service mesh, proxying all service requests globally
- Significantly optimized in-house forwarding proxy, reducing cost by ~50%
- Benchmarked using in-house proxy vs Envoy globally, projected a 25% savings
- Developed a technical plan and robust migration strategy to move to Envoy
- Led overall Envoy development, rebuilt all in-house traffic features/logic in C++
- Optimized CI pipelines and related tooling, reducing SDLC latency by ~80%
- Improved safety and reliability across systems, reducing on-call load by ~90%
- Established a strong culture of efficiency, correctness, testing, and automation
- Mentored other engineers in C++ and Go

### Uber, Observability — Staff Software Engineer

New York, NY — Feb 2019 - Feb 2022

- Tech lead for Uber's Observability organization (metrics, logging, tracing)
- Led and advanced Uber's [M3](#) and [Tally](#) open source projects
- Led the evolution of Uber's metrics platform focusing on automation, reliability, and efficiency, saving over \$1M and thousands of engineering hours annually
- Refactored large portions of Uber's 1M+ LOC metrics codebase, resulting in an average of 50%+ performance improvement (throughput and/or resources)
- Designed a robust next-gen signaling engine to enable cross-domain correlation between telemetry domains (metrics/logging/tracing), and auto-mitigate incidents and bad actors
- Led several working groups focused on improving diversity, inclusion, growth, infrastructure and technical trajectory, open source software, and productivity
- Mentored many engineers across several teams on a continual basis, resulting in material growth, improved technical, soft, and cultural skills, and promotions
- Cultural leader for Observability and surrounding organizations, focusing on inclusivity, EQ, quality of life, and general well-being of many engineers
- Developed a broad, robust, cross-organization culture around software quality, including a formal SDLC, testing practices, CI/CD pipelines, shadow traffic, canary deployments, etc
- Leader within Uber's Open Source program and language standards groups
- Co-author and maintainer of Uber's [Go Style Guide](#)

## SKILLS

Go  
C++  
Python  
Software Design  
Performance,  
Efficiency, and  
Optimization  
Distributed and  
Realtime Systems  
System Architecture  
and Reliability  
Software Networking  
Metaprogramming  
Observability  
Best Practices  
Mentorship

## ACHIEVEMENTS

Saved >\$10M in recurring costs through optimizations and design improvements.

Built and took the first self-driving ridesharing trip in the world.

Author of 12 patents related to self-driving systems.

Honored with a road (named "Matt Way") at [Uber's self-driving test track](#).

## Uber Advanced Technologies Group — Staff Software Engineer

Pittsburgh, PA — Sep 2015 - Feb 2019

- Led and delivered the world's first self-driving ridesharing launch
- Integrated self-driving cars with Uber's ridesharing network
- Designed and built the platform to federate all realtime communication between ATG's self-driving vehicles and Uber's infrastructure, reducing mobile costs by ~80% and consolidating over a dozen infrastructure services and platforms
- Designed and led the development of platforms for integrating *any self-driving vehicle* (Uber or otherwise) with the ridesharing network
- Designed and built the platform for realtime remote control of self-driving cars to supplement and train autonomy systems, without humans in the vehicle
- Designed and built autonomy security software and secure vehicle communication protocols
- Led orgwide technical trajectory, drove its adoption, and supported teams during onboarding (e.g. establishing Protobuf as the *de facto* IDL, gRPC as the overall API strategy, and service infrastructure and architecture in general)
- Led orgwide efforts focused on testing and deploying safety-critical distributed systems, and developed related processes, pipelines, and best practices
- Mentored engineers on technology, impact, trajectory, and growth, many of whom were subsequently promoted or delivered larger initiatives as a result
- Fostered cross-org collaboration and culture through various working groups and roundtables, improving communication, cohesion, and team relationships
- Established and led committees for C++, Go, and Protobuf standards, resulting in near-zero fragmentation, shorter code review cycles, and fewer redesigns and refactors
- Founded and led four core software teams, growing to over 50 engineers in total

## JazzHR — Lead Engineer

Pittsburgh, PA — Sep 2014 - Sep 2015

- Led the design, implementation, and direction of all systems, such as the core ATS backend, resume processing, and workflow tools
- Managed feature, backend, systems, and infrastructure teams (15+ engineers)
- Mentored colleagues on new technology and best practices
- Established standards & culture around efficiency and security, resulting in sub-second pipeline latency, faster indexing, and <100ms page load times
- Built an autonomous and elastic infrastructure to support all products

## Intergi — Lead Developer

Deerfield Beach, FL — Sep 2013 - Sep 2014

- Managed the engineering team, freelancers, and vendors
- Steered technical direction to align with company goals
- Led the development of GameZone, as well as the Playwire video player, ad network, and customer portal
- Rebuilt the Playwire video player from scratch to be modular and fully compliant with all major ad networks, serving 100M+ ad views/month
- Focused on the overall improvement of ad playback, network integration, availability, and reliability

## Rockstar Games — Senior Developer

New York, NY — Aug 2009 - Sep 2013

- Led the development and direction of product & service infrastructure
- Led the refactor and relaunch of the Rockstar Games Social Club
- Scaled systems for enormous load (e.g. 50M+ users for GTA V announcement)
- Designed and built the Emblem Editor and in-game integration for Max Payne 3
- Built product sites (GTA V, Max Payne 3, L.A. Noire, Red Dead Redemption, etc)
- Built critical infrastructure, tooling, middleware components, and intranet applications for realtime telemetry, game integration, authentication, administration, research, and more
- Key proponent of reliability, availability, scalability, and security

## Situation Interactive — Lead Developer

New York, NY — Jan 2007 - Aug 2009

- Led the company's technical direction and software adoption
- Managed several independent development teams
- Planned, coordinated, and executed projects on tight deadlines
- Performed a critical role in creative design and planning processes
- Mentored colleagues on new technologies and best practices
- Managed relationships with many high-profile clients, such as Disney, Blue Man Group, Wicked, and more

## OPEN SOURCE PROJECTS

- [github.com/uber-go/guide](https://github.com/uber-go/guide) – The Uber Go Style Guide. One of the most popular and referenced Go coding style guides.
- [github.com/uber-go/zap](https://github.com/uber-go/zap) – Blazing fast, structured, leveled logging in Go.
- [github.com/uber-go/fx](https://github.com/uber-go/fx) – A dependency injection based application framework for Go.
- [github.com/uber-go/tally](https://github.com/uber-go/tally) – A Go metrics interface with fast buffered metrics and third party reporters.
- [github.com/m3db/m3](https://github.com/m3db/m3) – Uber's distributed metrics platform, M3.

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## PATENTS

Author of 12 patents related to autonomous vehicles, cited by dozens including Amazon, GM, Ford, Toyota, Honda, Nissan, Volkswagen, Mitsubishi, NVidia, Waymo, Argo, Boeing, SUNY, USC, and various others:

- *Hierarchical motion planning for autonomous vehicles*  
U.S. Patent No. [10,518,770](#)
- *Autonomous vehicle application programming interface and communications systems and methods*  
U.S. Patent Nos. [10,749,960](#) & [11,729,270](#)
- *Integration platform for autonomous vehicles*  
U.S. Patent No. [10,761,527](#)
- *Systems and methods for a vehicle application programming interface*  
U.S. Patent No. [10,791,436](#)
- *Systems and methods for improved monitoring of a vehicle integration platform*  
U.S. Patent No. [11,109,249](#)
- *Methods and systems for configuring vehicle communications*  
U.S. Patent No. [11,797,024](#)
- *Vehicle integration platform (VIP) security*  
U.S. Patent No. [11,251,971](#)
- *Autonomous vehicle control using service pools across different service entities*  
U.S. Patent No. [11,625,649](#)
- *Autonomous vehicle control system implementing teleassistance*  
U.S. Patent Application No. [20180224850](#)
- *Controlling an autonomous vehicle and the service selection of an autonomous vehicle*  
U.S. Patent Application No. [20240028050](#)
- *Cloud Software Development Kit for Third-Party Autonomous Vehicles*  
U.S. Patent Application No. [20200241869](#)

## EDUCATION

**Youngstown State University, Youngstown, OH**

2003-2004

Astrophysics, Psychology