Z. Michael Gehlke

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I've been working in technology for over a decade and business for fifteen years. I've built technology for everything from microcontrollers to global cloud, from games to datacenters to business intelligence. I've also founded two startups and interned for a civil rights attorney.

I enjoy understanding and solving technical challenges, building teams and processes, and working across silos to deliver results.

Let's discuss how I can help you build success, today!

Consulting

My consulting has covered a range of clients, both in terms of scale and domain – with notable examples being: HBO/WarnerMedia; Symetra; MunichRE; and Panopto. In 2023 and 2024, I worked with smaller clients to help develop their cloud systems – including: a blockchain analysis tool and an African fintech backend.

I've itemized selected clients to help understand my work:

- **MunichRE — Software Consultant — Q3 2022**

  I helped MunichRE develop a legal analysis prototype for their internal incubator, aimed at lowering contract costs with clients. I worked to prototype the AI engine that analyzed sections: tagging them by type, flagging unusual sections for additional review, and suggesting refusal or acceptabnce according to lawyer feedback.

- **Symetra — Software Consultant — Q3 2021 to Q4 2021**

  I worked to build a cloud native email system for Symetra to communicate with their clients, regarding billing and policy notices. For this project, I led the design of the new mail system and mentored two Symetra SDEs to leave them with the skills necessary to carry forward the system at the end of my contract. This project was part of Symetra's cloud migration, moving from on premises datacenters to cloud services. Additionally, I mentored that team (SDEs and PMs) on project management, helping improve the way that new work was scoped and presented to the team.

  Technnologies: cloud, compliance; infrastructure-as-code, policy-as-code; AWS, S3, EC2, RDS; Python, TypeScript

- **WarnerMedia — Software Consultant — Q4 2018 to Q3 2019**

  I worked to build a prototype hybrid-cloud system for WarnerMedia, which connected their hardware test datacenter to their AWS build environment. For this project, I worked under the head of the datacenter team to build a prototype controller for their MacOS, PlayStation, Xbox, etc test devices. This allowed their physical test hardware to be utilized by the cloud build pipeline for automated testing of new releases. Additionally, I assisted in facility operations – ranging from datacenter hardware install/maintenance to developing and deploying network uptime monitors.

  Technologies: cloud, hybrid cloud, datacenter; switches, servers, IOT; networking; AWS, AWS IOT, ECS; Typescript, Golang

- **Panopto — Software Consultant — 2017 Q3**

  I worked to migrate Panopto's automatic transcript service into a Dockerized bundle, for easy deployment on clients. Prior to my work, the effort to install the multiple components (queue, transcription software, and API) required multiple days of support engineer time per client. By Dockerizing the components and bundling them with an appropriate Swarm file, that process was reduced to a few hours – while removing substantial dependency conflicts.

  Technologies: speech-to-text; build systems, Docker; RedHat

Full Time Employment

- **Amazon FinTech — Sr Software Developer — Dec 2019 to Jan 2021**

  I worked as a team lead building a tax calculation platform (sales, VAT, etc), utilized for tax filings globally. As team lead, I designed the architecture for an Excel-to-ETL compiler, which translated tax rules written in Excel spreadsheets into Amazon-scale ETLs. I then led the team on the implementation, turning a single-file 3000 line proof-of-concept into a modular and extensible library with over 1000 tests for correctness. This project reduced changes to tax ETL pipelines from 4 weeks to 4 hours, while putting tax analysts in control.

Technologies: cloud, compliance; infrastructure-as-code, policy-as-code; formal verification; AWS, S3, EC2, ECS, Redshift, RDS; Python, scipy, pandas, numpy; TypeScript

- **Amazon Devices — Software Developer — Oct 2017 to Aug 2018**

  I worked building a platform for modeling customer preferences, as part of the econometrics team. This platform was used by both Devices and Prime organizations to understand what features drive customer behavior. I discovered a multi-year, multi-billion dollar misallocation in Prime finance and I served as the SDE warroom representative during organizational triage. I worked with principal engineers from multiple teams to redesign the modeling and prevent reoccurrences.

  Technologies: cloud; AWS, S3, EC2, ECS; Python, numpy, scipy, pandas; Java, Ruby

- **Knotis — Technical Lead — Mar 2014 to May 2017**

  I delivered website features, AI safety (eg, removing profanity), gameification (eg, inducing behavior with coupons), and business intelligence (eg, marketing results). I oversaw a team of three on those projects and routinely worked with the CTO to outline future development.

  Technologies: cloud; AWS, S3, EC2; Python, Javascript

Internship

- **Barnes Law, LLP — Law Clerk Intern — Q4 2022**

I researched relevant statutes and case law for a civil rights trial involving a farmer alleged to be in breach of food safety laws. I found a strong argument that the farmer we were representing was within his rights and that the USDA case against him violated not only his rights, but the rights of his customers. This argument played a role in a favorable settlement for our client, prior to trial.

Skills: legal research, argument drafting

Education

Seattle University	BSc	Mathematics	07-10
	BSc	Computer Science	07-10
Edmonds CC	ASc	General Science	05-07

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For more information, please visit `https://zmichaelgehlke.com/about/` You can also view my current projects.

- SpacePowerMonkey

  Social purpose company focused on technology development, educational outreach, and AI advocacy.

- MosaicBlue

  Research association focused on special warfare, narrative warfare, and drone warfare.