



I'm a decorated U.S. Air Force Veteran and Staff Software Engineer working on real-time bidding systems at a major adtech demand-side platform (DSP), where I design, implement, and optimize distributed, high-scalability systems for low-latency digital advertising using GoLang and Google Cloud Platform (GCP). My background includes engineering software for NASA's Deep Space Network at the Jet Propulsion Lab, founding a residential tech support business, and growing a thriving Discord gaming community through technology and innovation.

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**Links**      [linkedin.com/in/clanier9](https://www.linkedin.com/in/clanier9) | [github.com/codenaugh](https://github.com/codenaugh)

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**Skills**      – Go, C/C++, Java      – GCP, Kubernetes, Kafka      – Postgres, MySQL, SQLite  
                 – JavaScript, Python, Perl      – Svelte, Angular, Node      – MariaDB, MongoDB

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## Experience

### Madhive

*Staff Software Engineer | Remote | Jul 2022 - Present*

- ◇ **Distributed Systems Architect:** Design and implement microservices using **Go**, **Kubernetes**, and **Kafka** on **GCP** to power the platform's core operations
  - **Real-Time Billing:** Designed and implemented an entirely new real-time billing system that includes contracts, pricing, pacing, and reporting, leveraging Kafka streaming as the backbone, to enable **automated billing** and **real time reporting**
  - **Targeting:** Lead backend initiatives for ad supply inventory and publisher targeting controls, designing and implementing features like **inventory prioritization**, **genre matching**, **volume capping**, and **deal groupings**
- ◇ **High-Scale/Low-Latency Infrastructure:** Improve and maintain the Real-Time Bidding (RTB) pipeline which can process over **3.5 million** ad requests per second (**QPS/RPS**)
  - **Optimization:** Reduced **p95 latency** in Device Graph Expansion from **2s to 100ms** and Segment Memcached costs from ~\$800/day to ~\$500/day, **saving ~\$100k/year**
- ◇ **Engineering Leader:** Authored **Madhive's Go Style and Optimization Guide** used for all of Backend Engineering and developed a custom structured logging library to standardize the company's GCP logging practices
- ◇ **Open Source Contributor:** Enhanced the industry standard for programmatic advertising through multiple contributions to a widely-used **IAB OpenRTB** Go package, as well as released a structured logging package and **protobuf extension** to the Go Package Repository

### NASA Jet Propulsion Laboratory

*Software Engineer | Pasadena, CA | Feb 2015 - Jul 2022*

- ◇ **Data Capture & Delivery (DCD):** Engineered critical software (**C/C++**) primarily responsible for predicting real-time bandwidth to inform data transmission prioritization
  - ◇ **Machine Learning Integration:** Led the development of a proof of concept neural network, providing real-time WAN bandwidth prediction, dramatically improving both latency (from minutes to seconds) and accuracy
  - ◇ **Leadership Roles:** Served as Third-Party Software Lead and DCD Hardware Lead, managing Solaris Operating Systems, Oracle servers, NetApp storage, and Cisco networking across worldwide distributed facilities
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## Experience Cont...

### Vision Service Plan (VSP) Global

Application Developer | Rancho Cordova, CA | Jun 2013 - Aug 2014

- ◇ Added business logic to calculate customer costs based on insurance coverage and applied discounts
- ◇ Developed regression tests to prevent critical system failures

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### Military Service

#### United States Air Force

Avionic Systems Specialist | 2004 - 2010

- ◇ Promoted to Staff Sergeant (E-5) in 4 years (avg. 6 years) and achieved Senior Airman (E-4) "Below the Zone" (top 15% of peers)
- ◇ Specialized in troubleshooting complex communication and navigation systems for F-15 fighter jets and U-2 reconnaissance aircraft

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### Education

#### Bachelor of Science, Computer Science

California State University, Sacramento | Aug 2012 to Dec 2014 | GPA 3.52

#### Associate of Science, Business Administration

Sierra College | Aug 2010 to Dec 2012 | GPA 3.55

#### Associate of Science, Avionic Systems Technology

Community College of the Air Force | 2004 to 2010

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### Personal Projects

#### OverPower Collections | <https://overpower.cards>

A React/Go website hosted on Google Cloud for tracking OverPower Trading Card Game collections, including a marketplace for buying and trading cards amongst users, as well as a deck building tool.

#### Sprunki Keys | <https://sprunki-keys.web.app>

My 7 year old daughter and I vibe-coded a keyboard typing game using her favorite internet characters (Sprunki) to help her and others learn to type.

#### Civilization VI League (CPL) | <https://github.com/CivLeague>

- ◇ Led an online competitive gaming league of **10,000+ international members**
- ◇ Developed custom Discord automation bots (**JavaScript**) for tracking league member stats and Steam mods to provide better game balance (**Lua/SQLite**)
- ◇ Achieved league recognition and sponsorship from the game developer, Firaxis
- ◇ The balance mod has been translated into 7 different languages and, in some form or another, is still being used by every major competitive Civ 6 community

#### OverPower Online Card Game

Engineered a standalone online multiplayer card game in **C#**, recreating parts of the 1995 *Marvel OverPower Trading Card Game* from scratch

#### Computer Solutions

During college, I founded a residential computer repair business for a nearby 55+ community. I was able to grow the business, hiring additional students to help with the workload, and transferring ownership to an employee upon graduation.

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