

BRADLEY S. ISENBEEK

Software Architect | Inventor | Systems Integrator

isenbek@protonmail.com | 616-727-1150 | github.com/tinymachines | Grand Rapids, MI

SUMMARY

Full Stack Developer with 15+ years architecting high-volume production systems. Expert in distributed systems, data processing at scale, and cloud infrastructure. Known for building elegant solutions to complex problems—whether processing billions of data points in production or building distributed systems from salvaged hardware in my garage lab. Strong technical leadership experience with a maker's mentality.

EXPERIENCE

Architect and Developer | VictoryText, LLC. | 2022 - Present | Grand Rapids, MI

- Architected high-volume, high-availability messaging platform from concept to revenue-generating production
- Developed RESTful API layer using FastAPI, integrating Twilio, Bandwidth, Kaleyra, and Telnyx
- Engineered low-level DynamoDB calls for atomic queue operations
- Built reporting backend for continuous carrier and provider statistics aggregation (QuickSight visualization)

Architect and Developer | ConservativeConnector, LLC. | 2018 - 2022 | Grand Rapids, MI

- Designed high-volume ESP data management systems leveraging AWS services
- Orchestrated data normalization for 100M+ contacts with billions of emails sent yearly
- Integrated 4.9 billion data points for modeling and connection discovery
- Built multi-channel data ingestion pipeline shipping to Snowflake for analysis and segmentation

Senior Architect | TransUnion SRG | 2014 - 2018 | Boca Raton, FL

- Led search engine team powering [Whitepages.com](https://www.whitepages.com) and other large-scale public data websites
- Managed highly available, distributed, secure infrastructure and team of five developers
- Lead developer on classified United States Government project
- Built ML models and segmentation systems with Data Science team to drive margin and conversion

Senior Architect | NextSource / PeopleTicker | 2012 - 2014 | Manhattan, NY

- Designed data structures and systems for global, real-time labor-rate calculator
- Developed rate search engine and algorithms using Java, Weka, and statistical packages
- Apache Solr, AWS (EC2, RDS)

TECH STACK

Production: Python, Bash, Linux, AWS, Snowflake, FastAPI, DynamoDB, PostgreSQL, Redis, ElasticSearch

Systems: C, Go, OpenWRT, ARM Assembly, Docker, Kubernetes, Custom networking protocols

Languages: Python, C, Go, Bash, JavaScript, C#, Java, PHP

Tools: Vim, Git, Nginx, Playwright, Tor, VPN architecture, Self-hosted infrastructure

KEY PROJECTS & INNOVATIONS

- **Distributed Investigation Tool:** 60-node Raspberry Pi cluster (40 Pi4 workers) with VPN/Tor architecture
- **TRNG System:** Thorium-based true random number generation with statistical validation (hotbits.tinymachines.ai)
- **Custom 802.11 Protocol:** Decentralized network data routing
- **Vectl:** Custom lightweight tooling for infrastructure management (github.com/tinymachines/vectl)
- **AI Workflow Integration:** Integrated Claude as co-worker for enhanced development workflow

- **Model Training:** Dynamic Playwright code injection for automated web task execution

TECHNICAL LEADERSHIP

- Led classified government projects requiring highest security clearances
- Managed cross-functional teams delivering complex systems under tight deadlines
- Architected systems processing 100M+ records and billions of transactions
- Built and maintain self-hosted infrastructure including custom DNS

EDUCATION

Advanced Object Oriented Programming | Columbia University

Courses in Computer Science | Plymouth State College

Physics Engineering | University of Buffalo

REFERENCES: Available upon request