

EXPERIENCE

- **Grabango** Berkeley, CA / Remote
Jan 2022. - Present
 - *Senior Software Engineer*
 - Platform integrations team, focused on:
 - * High-performance computer vision (CV) inference data transfer service, built with Rust/Kafka on edge Kubernetes
 - * AI-driven product identification engine, built with FastAPI/ElasticSearch on Google Kubernetes Engine (GKE), and data ingest pipelines on Airflow
 - * Data model and backend implementation for `i18n` of pricebooks from foreign retailers
 - * Numpy/Shapely-vectorization-based Python backend for serving 3D customer tracking data with related camera metadata
 - We offer a checkout-free experience at: 7-Eleven, MAPCO, Chevron, and others!
- **Innovative Defense Technologies (IDT)** Mount Laurel, NJ / Remote
Jul 2016. - Dec. 2021
 - *Software Engineer, Secret Clearance*
 - Backend team for the Automated Test & Retest (ATRT) Enterprise Platform
 - * Built a virtual machine (VM) life-cycle manager and job scheduler utilizing Packer/Terraform, plugging into VMWare VCenter to provide an elastic, self-service, on-prem CI/CD solution on air-gapped Navy networks.
 - DevSecOps team for the Navy Combat Systems Cloud-to-Edge (CTE) effort
 - * Developed a package manager for Ansible roles, based on `ansible-galaxy`.
 - * Developed a command-line-interface (CLI) for incremental transfer of software packages (Maven, Conan, Pip, NPM, Docker, git bundle) across air-gapped networks.
- **Air Force Research Laboratory (AFRL)** Albuquerque, NM
Summer 2014 and 2015
 - *Mechanical Engineering Intern, Secret Clearance*
 - Mechanical design, finite element modeling, and MATLAB data processing for:
 - * NASA Resilient Thermal Panel (RTP)
 - * AFRL Advanced Structurally-Embedded Thermal Spreader - II (ASETS-II)

EDUCATION

- **Georgia Institute of Technology** Atlanta, GA / Remote
Sep. 2018 - Dec. 2021
 - *Master of Science (MS) in Computer Science*
- **Princeton University** Princeton, NJ
Sep. 2012 - Jun. 2016
 - *Bachelor of Science in Engineering (BSE), Mechanical and Aerospace Engineering*

SKILLS

- **Languages:** Python, C++, Java, Javascript/TypeScript, Rust
- **Databases/Data Processing:** PostgreSQL, Elasticsearch, Mongo, Airflow, BigQuery, MLFlow, numpy
- **Cloud:** VMWare, Google Cloud Platform (GCP), Docker Swarm, Kubernetes (plain and GKE), Red Hat OpenShift
- **Technologies:** RabbitMQ, Kafka, ZeroMQ, Celery, gRPC, FastAPI, Flask, hyper.rs, Light4J, NodeJS/Express, Vagrant, Packer, Terraform, Vault, Ansible, SaltStack

PROJECTS

- **Personal HomeLab:** I administer a personal server running VMWare ESXi, with a highly-available Docker Swarm on it. This setup is hosting the portfolio website you see above!
- **Game Development in Godot Engine:**
 - Hilda: Trouble in Trollberg, a platformer based on the Netflix Animated series, *Hilda*
 - Unnamed Real-Time Strategy (RTS) prototype - I'd really like to flesh this out into my own personal flavor of *Age of Empires*.
- Archive website of old projects