

## EXPERIENCE

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- **Grabango** Berkeley, CA / Remote  
*Senior Software Engineer* *Jan 2022. - Present*
  - 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  
*Software Engineer, Secret Clearance* *Jul 2016. - Dec. 2021*
  - 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  
*Mechanical Engineering Intern, Secret Clearance* *Summer 2014 and 2015*
  - 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

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

## SKILLS

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- **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

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- **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