ERIC SOLOMON

FULLSTACK ENGINEER & DATA SCIENTIST

💼 EXPERIENCES

2019 | 2018

Fullstack Engineer
Boid: Social Supercomputer   📍 (remote)
- Design, implementation, and management of EOSIO-based system for managing a medium-scale distributed computing cluster
- Participation in startup funding proposal and business outreach processes

2018 | 2016

Graduate Research Assistant
Alfred Gessow Rotorcraft Center   📍 College Park, Maryland
- Research into aerial robotics, computer vision, control systems, and artificial intelligence
- Design and implementation of small-scale, intelligent aerial vehicles using solely on-board processors
- Engineering management for undergraduate and graduate collaborators

📂 SELECTED PROJECTS

2020

GatsbyJS
GatsbyJS
- Contributions to the GatsbyJS static-site generator
- Documentation & demonstration of asynchronous plugin usage
- Updates to image components to maintain HTML validation

2020

Linkerd
Linkerd
- Contributions to the Linkerd service mesh
- Incorporating RSA-based PKI certifications
- Validation of compatibility of Kubernetes service accounts

2020

Personal projects
Personal
- React UI and Go/Python microservice designs for personal site and associated projects
- Fractalooze: Serverless fractal image compression
- Graphtools: General purpose graph with Go & websockets. UI with ReactJS for visualizing algorithms.
- AAAB: Serverless webapp for dataset source validation & experimentations with quantum computing

2019 | 2018

BOID-EOS
Boid
- EOSIO-based system for managing Boid-associated computers and their computational contributions to the Boid distributed compute cluster
- Blockchain and API-endpoint components

2018

Metaltail Hybrid VTOL Vehicle
Alfred Gessow Rotorcraft Center
- Hybrid hover & forward-flight vehicle for use in urban environments
- Design and analysis of avionics and controls systems

2018 | 2016

Aerial Vehicle Control using Snapdragon Flight
Alfred Gessow Rotorcraft Center
- Autonomous micro-aerial system using only onboard components
- Modern techniques in computer vision, mapping, avionics, and controls

🎓 EDUCATION

2018 | 2016

M.Sc. in Aerospace Engineering
University of Maryland   📍 College Park, Maryland
- Focus in aerial robotics
- GPA: 3.47

2016 | 2012

B.Sc. in Aerospace Engineering
University of Maryland   📍 College Park, Maryland
- Minor in Computer Science
- GPA: 3.40

SOCIAL INFO

🌐 errcsool.com

🐙 github.com/han-so1omon

📑 stackoverflow.com/users/3271700/errolflynn

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in linkedin.com/in/eric-solomon-35a22490

SKILLS

Web design
Serverless
Microservices
Javascript/Typescript
Go
HTML5
CSS3 & SCSS
ReactJS
Static-site generation & CMS
GraphQL
REST
NoSQL (incl MongoDB & FaunaDB)
SQL (incl PGSQL & MYSQL)

Data science
Machine learning & AI
Control theory
Computer vision
Python
C++ (incl C++11 & C++20)
Tensorflow

Container orchestration
Docker & Kubernetes
Service mesh (incl Linkerd)
Blockchain (incl EOSIO)

Git
CI/CD (incl Github Actions)
Linux
Bash

📰 PUBLICATIONS

2019 ● "Reinforcement Learning Control for Quadrotors using Snapdragon Flight". E. Solomon, A. Shastry, V. Hrishikeshevan, I. Chopra. 8th Biennial Technical Meeting on VTOL Unmanned Aircraft Systems and Autonomy. Mesa, AZ. Jan 2019

2018 ● "Autonomous Quadrotor Control and Navigation with Snapdragon Flight". E. Solomon, V. Hrishikeshevan, I. Chopra. 74th American Helicopter Society International Forum. Phoenix, AZ. May 2018

2017 ● "Visual Odometry Onboard a Micro Air Vehicle Using Snapdragon Flight". E. Solomon, C. Vorwald, V. Hrishikeshevan, I. Chopra. 7th American Helicopter Society Technical Meeting on VTOL Unmanned Aircraft Systems and Autonomy. Mesa, AZ. Jan 2017.