

ROB STEILBERG

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EDUCATION

Duke University, Durham, NC

2014 – 2018

B.S. Computer Science – DeNardis Memorial Award

Dean's List with Distinction

EXPERIENCE

ForeFlight, a Boeing Company

Senior Server Developer, 2022 – present

Austin, TX

- Built a proof-of-concept for a real-time data pipeline of reported turbulence data based on automated acceleration observations from portable ADS-B devices
 - Shipped the feature with Amazon CDK, SQS, SNS, CloudFormation, CloudFront, and ECS Scheduled Tasks with full metrics and monitoring; [Reported Turbulence AOPA article](#)
- Provided customer support, product expertise, and sales recommendations to pilots at events and airshows, including EAA AirVenture Oshkosh in addition to the Pilatus and Cirrus owner conventions

Server Developer, 2021-2022

- Led the rollout of JetFuelX in ForeFlight Web, triaging complex migration issues and supporting unique and specific customer needs
- Designed and implemented a complex database migration with zero downtime, followed by server work to support the release of airport and business comments (termed Insights) in ForeFlight Mobile

Certified Flight Instructor, ASEL

2024 – present

Austin, TX

- Providing primary and recurrent flight instruction in Piper Cherokee and Cessna 172 aircraft

Esri

Software Development Engineer, 2018 – 2021

Washington, DC

- Rebuilt ArcGIS Hub's obsolete domain resolution service into a scalable microservice with Express.js
 - Saved Esri approximately \$100k in annual server costs via termination of a legacy Rails application
- Contributed to Esri's open source, cross-team TypeScript libraries, plus several open source Ember.js libraries
- Engaged with ArcGIS Hub, Online, and Enterprise customers at the Esri UC and the Esri Developer Summit

Intern, summer 2017

- Prototyped an Ember.js app which templatises ArcGIS Online mapping applications, making them compatible with any Esri-hosted dataset and improving application buildout time by over 85%

Clinica Esperanza

Volunteer, 2018 – present

Roatán, Honduras

- Principal developer of mVax, an Android application powered by Firebase that recorded immunizations and generated vaccination reports, which increased vaccine patient throughput at the clinic by 50%
- Provider of onsite technical support in Roatán and remote maintenance of the clinic's website

SKILLS

Current: Java (Spring), JavaScript, Node.js (Express, Ember), HTML/CSS, Redis, Docker, SQL (PostgreSQL, SQLite, MySQL), Linux, AWS (CDK, CloudFormation, Route 53, ECS, S3, SNS, SQS, CloudFront, and others), nginx; working knowledge of TypeScript, React, and Rust

Previous: PHP, jQuery, Python, Android, Swift, C, C++, Ruby (Rails), R, Lisp (Racket), MIPS, Elasticsearch, Kubernetes

PERSONAL WORK

roob1090

- Built a full stack pipeline and realtime API with Rust, Python, Express, and Docker for localized ADS-B tracking
 - Hardware layer parses ADS-B signals decoded by dump1090 and then transmits aircraft position reports via WebSocket to an Express.js server
 - Server layer aggregates individual flights and enriches the dataset with aircraft type and routing information from OpenSky and FlightAware
 - Node worker threads continually perform geofencing to sort each flight into a given airspace of interest
 - Hosted at aircraft.robsteilberg.com and powered by a Raspberry Pi on my apartment balcony

INTERESTS

- Aviation, holding First Class Medical, Commercial Pilot, and Certified Flight Instructor Certificates, ASEL
- Diving, holding Open Water, Advanced Open Water, Rescue, Nitrox, and spearfishing diving certifications
- Global health and humanitarian work in Latin America, with additional experience in Guayaquil, Ecuador working at an equine therapy rehabilitation center for children with special needs