ROB STEILBERG

EDUCATION

Duke University, Durham, NC

2014 - 2018

B.S. Computer Science

Dean's List with Distinction, 3.716 / 4.0

SKILLS

Current: JavaScript, Node (Express, Ember, Gatsby), Docker, Kubernetes/Helm, Jenkins, Rust, Redis, SQL (Postgres), Python, HTML/CSS (Sass, Tailwind), Raspberry Pi, familiarity with AWS and Elasticsearch Previous: TypeScript, jQuery, Java/Android, Swift, C, C++, Ruby (Rails), R, Stata, Lisp (Racket), SML/NJ, MIPS

EXPERIENCE

Esri, Washington, DC

Software Development Engineer, 2018 – present

- Rebuilt ArcGIS Hub's obsolete domain resolution service into a scalable microservice with Express
 - Containerized with Docker and implemented CI/CD with Jenkins; deployed with Helm to Hub's Kubernetes clusters
 - o Saved Esri approximately \$100k in annual server costs via the shutdown of a legacy Rails application
- Implemented a complete UI redesign and CSS refactor of Hub's Ember-built WYSIWYG website editor
- Contributed to Esri's open source, cross-team/platform TypeScript libraries, plus several Ember libraries
- Directly mentored an intern on Hub's backend team during summer 2020; independently coached a new hire on the frontend team throughout 2019
- Engaged with ArcGIS Hub, Online, and Enterprise customers at the Esri UC and Esri Developer Summit

Intern, summer 2017

- Prototyped an application which templatizes ArcGIS Online mapping applications, making them compatible with any Esri-hosted dataset
 - o Reduced the time necessary to template new mapping applications for ArcGIS Hub by over 85%

Duke Global Health Institute, Roatán, Honduras Mobile Development Engineer, summer 2018

- Principal developer of <u>mVax</u>, an Android application powered by Firebase that records immunizations and generates vaccination reports in accordance with government specifications
- Completed onsite deployment at a local hospital, subsequently increasing vaccine patient throughput by 50%

PERSONAL WORK

roob1090

- Built a full stack pipeline and realtime API with Rust, Python, Express, and Docker for localized ADS-B tracking
 - o Hardware layer parses ADS-B data decoded by dump1090 and then transmits it via WebSocket
 - o Server layer aggregates individual flights and enriches them with data from OpenSky and FlightAware
 - o Node worker threads continually perform geofencing to sort each flight into a given airspace of interest
 - o Hosted at <u>aircraft.robsteilberg.io</u> and powered by a Raspberry Pi on my balcony

INTERESTS

- Aviation; I am a student pilot based out of Potomac Airfield (VKX) currently pursuing a Private Pilot Certificate
- Global health in Latin America, with additional experience in Guayaquil, Ecuador working at an equine therapy and rehabilitation center