

# KAI SEWARD

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[PORTFOLIO](#)

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## SKILLS

React / Redux, JavaScript, Python, PHP, HTML / CSS, Node.js, Express, Flask / SQLAlchemy / Alembic, SQL (PostgreSQL, MySQL, Apache Hive, Presto), REST APIs, Object-Oriented Programming, Test-Driven Development

## EXPERIENCE

### Facebook

#### Search Ranking Specialist / Tool Specialist

2014 -2020

- Built and maintained tools in **PHP (Hack)**, **JavaScript**, and **ReactJS** used by a large contingent workforce (in-house and crowdsourced) to provide millions of points of relevance and classification data daily to Facebook's product teams including those focused on search ranking, news, places, videos, trending topics, NLP, and others.
- Designed and **built internal tools with PHP and SQL** and **developed metrics** for internal teams and vendors to track data quality including visualizers for accuracy, inter-rater reliability, confusion matrices, precision / recall, and disagreements.
- Collaborated with a team of software engineers as a member of a 24/7 on-call rotation; including winning a "fix of the month" award for quickly spinning up a framework to prevent user privacy policy violations in our human rating platform.
- Designed and implemented a logging and reporting system based on an internal logging API, a **Python** and **Apache Hive-based ETL pipeline**, and a PHP-based vendor-facing tool to automate time-tracking and billing for contingent workers saving millions of dollars in lost productivity arising from inaccurate/exaggerated time reports and slow task processing.
- Managed and developed training programs for a team of 40+ onsite contingent workers, overseeing cross-functional relationships with vendors and other teams as our rating workforce scaled from around 30 onsite workers to 2000+ human raters globally.

## PROJECTS

### kaiNaturalist (ReactJS / Redux, Python / Flask, SQLAlchemy)

[live](#) | [github](#)

*A social citizen science / exploration app based on iNaturalist.org that allows users to upload and geotag observations.*

- Designed complex custom map-based features using the open source Leaflet JS library allowing users to populate location-based forms with an intuitive, draggable UI and explore uploaded data on a dynamic map.
- Leveraged external taxonomy APIs to design a database enabling users to tag their observations with biological data in a structured way.
- Utilized AWS S3 for user uploads allowing for photo-based features that scale far beyond the limits of a Heroku deployment.

### DebonairBnB (ReactJS / Redux, Python / Flask) (Team Project)

[live](#) | [github](#)

*A spiritual clone of Airbnb for only the finest, most luxurious stays in the world.*

- Leveraged the geopy Python package and Google Maps API to build an object-oriented geocoding utility allowing team members to iterate efficiently on location-based data and simplify validations on user input.
- Developed a custom reusable emoji-based "star" rating component using React, CSS3, and React Hooks providing a unique rating-review flow adhering to our visual theme.
- Built out the majority of the project's Flask / SQLAlchemy backend, API Routes, and Redux store during the initial stages of our project so that collaborators could iterate quickly on features.

## EDUCATION

**App Academy** | Full-Stack Software Engineering (January 2022)

**Virginia Tech** | Bachelor of Science in Mathematics, Minors in Biology & Entomology

**Relevant Coursework:** Python Programming, Number Theory, Discrete Mathematics, Combinatorics