

# ALLISON KWAN

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## EDUCATION

**Georgia Institute of Technology**, Atlanta, GA

GPA: 3.96

Bachelor of Science in Computer Science

Graduation: Dec 2023

Courses: Data Structures & Algorithms, Systems & Networks, Database Systems, Info Security, Mobile Apps, Graphics, HCI

## SKILLS

**Programming:** Java, Python, Kotlin, JavaScript, TypeScript, Dart, SQL, PL/SQL, HTML, CSS, R, C, MATLAB

**Technologies:** React, Flask, Flutter, React Native, Git, AWS Lambda, AWS CloudFormation, AWS Cloud Development Kit (CDK), AWS Elastic Beanstalk, AWS CodePipeline, JUnit, Gradle, Apache Ant

**Software:** Oracle Application Express (APEX), Oracle SQL Developer, Oracle Rest Data Services (ORDS), QlikView, Tableau, Confluence, Google Analytics, Figma, Asana, Excel, LabVIEW

## WORK EXPERIENCE

**Amazon**, Software Development Engineer Intern

May 2023 – Present

- Migrating a shipment lifecycle processing workflow supporting 3 million+ internationally shipped units/month from being backed by a monolithic legacy system into an AWS Lambda backed service (Kotlin, TypeScript) while reducing coupling.
- Developing a new workflow that integrates internal traffic direction software into a shipment service integration layer package, streamlining the gradual dial-up of new features into production.
- Reducing processing time for parallelizable work items (e.g. shipments) up to 200 times based on shipment counts.
- Improving orchestration-related operational workloads by 20% & new orchestration feature development effort by 10%.

**Tree-Plenish**, 501(c)(3) Nonprofit, Software Development Lead

Jan 2021 – Present

- Developed a mobile app (Flutter) for event hosts to notify 5,000+ participants about planting locations & tree deliveries and receive support through integrated access to EZTexting, Thinkific, and other proprietary apps.
- Created a full stack web application (React, Flask) for 4,000+ student volunteers from 500+ schools across 41 states to access and download school-specific private data from a PostgreSQL database managed by AWS RDS.
- Developed a Web API (Flask) to retrieve data and secured endpoints with HTTP Basic Authentication.
- Developed a graphical user interface (GUI) with Tkinter (Python) for nonprofit executives to view database content without performing SQL queries. Distributed it as a stand-alone executable compatible with Mac & Windows machines.

**American Express**, Software Engineer Intern

May 2022 – Aug 2022

- Developed a web application to consolidate service status, file system, and OS data from 150+ servers supporting 14 finance platforms used by 200 development & 3,000+ business users, saving 90 hours per month of engineers performing manual reactive health checks, empowering engineers to proactively identify issues.
- Enabled users to have self-service access to data, reducing total support team inquiry volume by 20%.
- Implemented ability to call a REST API on-demand to update database content & display real-time information.
- Wrote 61 advanced SQL queries supporting interactive charts & incorporated drill-down functionality.

**Analog Devices**, Software Engineer Intern

May 2021 – Aug 2021

- Developed a website for the Automotive Customer Quality team to communicate current KPIs to upper-level executives and external auditors. Embedded 45 QlikView charts in the website to display live data pulled from remote servers.
- Redesigned a QlikView dashboard to help 20 engineers identify major disruptions in 200+ ongoing global business-to-business product quality processes.
- Developed a script (Selenium, Python) to automate engineers' completion of recurring web browser tasks.

## PROJECTS

**Voices of the Vaccine**, Hacklytics (555 Global Participants), Best Overall Project

Feb 2021

- Developed a bidirectional recurrent neural network (TensorFlow; 90% accuracy) to perform sentiment analysis on 20,000+ vaccine tweets scraped from the web using the Twitter API.
- Designed interactive geographic data visualization tool (Plotly, Dash) to enable healthcare officials to identify potential locations for educational campaigns by monitoring public opinion towards the vaccine.

## LEADERSHIP

**Southface Energy Institute**, Product Manager

Aug 2022 – Dec 2022

- Drove development of a full-stack web app (MongoDB, Express, React, Node) for Southface Institute architects to easily filter and implement technical building standards and disseminate project plans, freeing use of planning resources by 50%.
- Collaborated with engineering manager and designers to consolidate client's requirements into product roadmap consisting of actionable development tasks grouped into epics. Hosted Agile ceremonies such as sprint retrospectives.
- Created product feature specification & product user flow diagram while grooming product backlog and user stories.