

# Matthew Kim

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## Education

**BA Computer Science, Data Science Minor** - Wesleyan University, GPA: 3.59 Sept. 2019 — May 2023

## Work Experience

**Software Engineer Intern** - Toast, Remote June 2023 — Aug. 2023

*Toast is a restaurant point of sale company. Toast Tables is a waitlists and reservations service.*

- Built out deposit booking and "table ready" SMS notifications using Apache Pulsar and Twilio
- Fixed Sev 2 issue in waitlist time estimator that incorrectly displayed 0 min wait times during restaurant service
- Reduced API requests by revamping booking sidebar resulting in \$5K in monthly savings
- Refactored SMS service and implemented Sonarqube compliancy by reducing cognitive complexity and raising test coverage to 92%
- Developed product usage panel that tracks and informs free-tier restaurants of monthly booking quotas
- Extended DateTime library and refactored codebase to compute precise restaurant closeouts
- Solved customer care bugs, using Splunk and Datadog to debug and monitor production systems

**Software Engineer I** - Wesleyan Media Project, Middletown, CT Sept. 2021 — Sept. 2022

*WMP is a political advertising research lab.*

- Developed data labeling platform streamlining task delegation and data annotation for ML model
- Wrote tool using Facebook ad data to compare state-by-state 2020 US presidential campaign spending by tabling data and visualizing US choropleth maps
- Resolved storage and speed inefficiencies by migrating to cloud microservice for training data storage and retrieval
- Automated administrator duties by configuring IAM roles, managing CloudWatch logs, curating billing invoices

**ML Teaching Assistant** - Wesleyan University, Middletown, CT Jan. 2023 — May 2023

*QAC239 is a proseminar in ML theory and application offered by the Wesleyan Data Science Department.*

- Hosted office hours (4 hrs weekly), contributed to 12-week course curriculum; wrote problem sets in Python and trained models using Sci-kit Learn, Tensorflow, PyTorch, OpenCV

**SCIC Tutor** - Wesleyan University, Middletown, CT Sept. 2022 — May 2023

*SCIC is a center composed of tutors hired by the Wesleyan CS and Data Science Department.*

- Served students (10+ hrs weekly) with all purpose programming; topics include proofs, functional programming, web development, data science, object oriented programming

## Projects

**WesCam** April 2023 — May 2023

*WesCam is an end of school tradition where people send messages, play a matching game, and say goodbye.*

- Architected and rebuilt 1:1 social chat platform; lead 3-person engineering team; handled 783 users with 1200+ messages corresponding and 200+ chat rooms created daily
- Scaled product; rolled out key features: message encryption, notifications, community board, user blocking, animations, chat room deletion, chat harassment policing

**Mapping US Agriculture Commodity Flow** Nov. 2022 — Jan. 2023

- Modeled graph network, pathed domestic commodity routes, analyzed traversal flow across the US, focusing on major export hubs and agricultural commodities. Data sourced from the Commodity Flow Survey.

**You Only airBend Once (YOBO)** Nov. 2020 — Dec. 2020

- Built real-time object detection model using YOLOv3 that identifies Aang from "Avatar: The Last Airbender"

## Skills

**Programming:** Kotlin, Typescript, Java, Python, R | **Tools:** Vercel, Git, Jenkins, Splunk, Datadog, Sonarqube | **Cloud:** AWS  
**Frameworks:** Nextjs, Nodejs, Reactjs, Dropwizard, Spring Boot, Expressjs | **Databases:** DynamoDB, PostgreSQL, MongoDB

## Interests

Brazilian Jiu Jitsu, Open Source, Hiking, Agriculture, Agronomy, Vim, Country Music, Norm Macdonald