

# Kevin Chen

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## EDUCATION

### University of Illinois Urbana-Champaign

Online Master, Computer Science (GPA: 4.0)

May 2024 - August 2026

Bachelor of Science, Computer Science + Linguistics (GPA: 4.0)

August 2020 - May 2023

**Awards and Activities:** Bronze Tablet Graduate (Top 3%), Dean's List, 2023 Outstanding Undergraduate in Linguistics, Founder of Leetcode @ UIUC

## SKILLS

**Programming Languages:** Java, Kotlin, Typescript, C++, SQL, Python, HTML, CSS

**Skills and tools:** GraphQL, DynamoDB, S3, EC2, ECS, Lambda, SQS, CloudFormation, Bedrock LLM, Jetpack Compose, Kotlin Coroutines/Flow, React Native, Spring, Guice, Lombok, JUnit, Mockito, MockK, Git, Linux, Docker, Gradle, Maven, CI/CD Pipelines, Cline, Cursor, GDB, Pytorch, Tensorflow, Numpy, Pandas

## EXPERIENCE

### Amazon

Seattle, WA

#### Software Development Engineer

April 2024 - Present

- Developed the **Natural Language Search** functionality on Kindle using **LLM with AWS bedrock**, implementing query parsing, intent detection and RAG prompting
- Completed migration of Kindle's Search service into AWS, integrating **GraphQL**, containerization via **AWS Elastic Container Service** and asynchronous dependency calls via Kotlin coroutine flow
- Led the migration of Kindle for Android's Search UI migration into **Jetpack Compose**, leveraging modern design language and animation, ensuring accessibility compliance, and reducing source code size by **45%**
- Created and launched interactive search filter refinements, resulting in **+515k** in filter usage per month
- 2x Hackathon winner** exploring the applications of **LLMs** in personalized search recommendations and content summary generation

#### Software Development Engineer Intern

May 2023 - July 2023

May 2022 - August 2022

- Implemented the Kindle Search mobile UI using ReactJS with AJAX data injection
- Designed and created a data mining pipeline using AWS DynamoDB, EventBridge, SQS, S3 and Lambda to ingest customer search metrics and provide daily keyword trend updates

### University of Illinois Urbana-Champaign

Champaign, IL

#### Course Assistant, Computer Systems and Software Design Studio

December 2020 - May 2022

- Coordinated feedback auditing and assignment distribution as course assistant group lead
- Led discussion sessions and designed assignments on programming style concepts (encapsulation, reusability, testability) and computer systems fundamentals (memory management, file I/O, networks)

#### Computer Vision Research Assistant, Energy Transport Research Lab

May 2021 - December 2021

- Assisted in the creation of Mask R-CNN object detection model via VGG annotator for liquid condensation

## PROJECTS

- Federated Learning Resource-Aware Heterogeneous LoRA Allocation. A dynamic LoRA rank estimation and allocation algorithm for client resource heterogeneity in decentralized machine learning. Tools used: Python, Pytorch, opencv, numpy, pandas, scipy, accelerate, transformers.
- TOL-Trainer. Online grading platform designed for the National Taiwan University (NTU) graduate department of Linguistics. Tools used: Python, Flask, Javascript, HTML/CSS, MySQL, SQLAlchemy.

