

Sanghoon Choi

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EDUCATION

University of Waterloo, BMath in Computational Mathematics (Co-op)

Sept 2020 - Dec 2025

Data structures, Databases, Feedback control, Discrete modelling, Computational linear algebra, Optimization

SKILLS

Languages Kotlin, Python, Java, Swift, JavaScript, TypeScript

Technologies Jetpack (Compose, Nav, ViewModel), Retrofit, Coroutines/StateFlow, JUnit, MVVM, Gradle, Git

EXPERIENCE

Software Engineer Intern, Autodesk

Apr - Dec 2024

Kotlin, Jetpack Compose, SDLC, JUnit, Gradle, Dagger, MVVM architecture, BugSnag

- Developed and refined core features for Autodesk Build, used by millions in the global construction industry to improve collaboration, reduce rework, and increase project efficiency.
- Directed implementation of markup copy/paste which reduced manual duplication tasks by **80%**.
- For copy/paste, designed a clipboard system combining app-managed and device memory to optimize UX, plus serialization logic for cross-file references and **JUnit** test coverage.
- Engineered a user-model framework by refactoring the markup retrieval pipeline, streamlining database queries, preventing data gaps, **reducing exception cases by 90%**, and improving loading time **by 35%**.
- Built markup history-tracking with **Kotlin**, **MVVM architecture**, and **Jetpack Compose**, deploying to **1.2M users**, improving investigation efforts by **30%** and enhancing accountability.
- Developed markup rotation, a **high-visibility release** that increased feature parity with competitors and reduced length of workflow by **50%**.
- Coordinated release pipeline for Android/iOS using **BugSnag** for continuous monitoring and alerting, maintaining **99.9%+** uptime.

Software Engineer Intern, Loblaw Digital

Sept - Dec 2022

Kotlin, Snowplow Analytics, Contentful, Firebase Crashlytics

- Delivered a dynamic carousel feature in **Kotlin** with personalized data and Snowplow Analytics integration for impression tracking (**20% engagement increase**) liaising closely with product and design to align on requirements and rollout.
- Migrated key feature modules toward **MVVM architecture**, simplifying UI logic and improving state management, scalability, and code quality.

Software Engineer Intern, Purolator

May - Aug 2023

Google Analytics, Javascript, AWS, Drupal CMS

- Automated CI/CD pipeline, linking build process with **AWS S3**, reducing deployment time by **40%**.
- Integrated **Google Analytics** through Google Tag Manager utilizing triggers and dataLayer events to boost tracking accuracy, which allowed UX tweaks that lifted user engagement by **20%**.

Software Engineer Intern, Zurapps Research

Jan - Aug 2021

Swift, XCode, FTP, StoreKit2

- Refactored Vault import/export processes for stronger stability resulting in a **45% drop** in user errors.

PROJECTS

🔗 **Cafe Logger**

Aug 2025

Kotlin, Android Studio, Jetpack (Compose, Navigation, ViewModel), MVVM, Retrofit, StateFlow, Gradle, Google APIs, Firebase, Figma

- Built a **Kotlin** coffee journal app with **Jetpack Compose** and **MVVM**, integrating **Google Maps API**. Managed UI state and user inputs with **ViewModel** and **StateFlow** to display a dynamic grid of recent experiences.