

# AKSHAY KALUCHA

Software Engineer  
Expert in Mobile application development  
Chicago, IL

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## EDUCATION

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- **Illinois Institute of Technology** Chicago, IL  
*Master of Science in Information Technology; Software Engineering Concentration* Anticipated: Nov 2024
- **University of Delhi** New Delhi, India  
*Bachelor of Science in Computer Science; Ist Division* Jun. 2018 – Aug. 2021

## EXPERIENCE

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- **HYPD Store** New Delhi  
*Software Engineer* Dec 2021 - Aug 2022
  - Used Core Data for persistent storage, reducing redundant network requests.
  - Designed p2p data-channel using webRTC for video streaming, scaling it parallelly to run encoding, caching and validation.
  - Worked with backend engineers to develop server-driven UI in SwiftUI for hypd store.
  - Overhauled software architecture in MVVM, utilising async/await and concurrency to reduce memory leaks which significantly improved the on-screen time by 40%.
  - Implemented Push-Notifications, Deep-Linking and in-app notifications.
- **Dept. of Mathematics, University of Delhi** New Delhi  
*Research Intern, Guide Prof: Dr. Umesh Kumar* Nov 2020 - Jan 2021
  - Implemented a model that applies multinomial naive bayes classification on a comprehensive labelled dataset of around 240k Twitter users to predict the probability of them not being COVID'19 vaccinated.
  - After model training, we identified an optimal classification threshold, based on F1 score on validation set. The model was then evaluated to achieve reasonable scores.
- **Intellify** New Delhi  
*Software Developer Intern* fall 2019 and winter 2020
  - 115 Prs Merged, 550 Contributions.
  - Wrote 6000+ lines of code, released 3 major features.
  - Designed MVC architecture for the web app and built OTP based login system, JWT Auth, sessions, and Push-Notifications for android app users.
  - Fixed lots of bugs, resolved lots of jira tickets and sentry issues.

## PROJECTS

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- **WireBase**: A Nodejs realtime editor that compiles and visualise code in human readable format
- **Pictureskew**: Open-source human-computer emotion detection platform for research in the field of smartfying Indian general stores
- **IIT Stream**: Multi-client video lecture streaming platform for IIT students
- **PyCalc**: Neural network package to solve ordinary partial equations

## PROGRAMMING SKILLS

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**Proficient**: Javascript, Swift, Java, Python  
**Mobile**: SwiftUI, UIKit, Kotlin, React-Native, Cocoa Touch, Objective-C  
**Web**: React, Express, Node, Nextjs, Redux  
**Utilities**: Shell Utilities, Git, PostgreSQL, MongoDB, Firebase, LaTeX