# Dexter Gao

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## SKILLS

**Programming Languages:** Java, C++, C#, Python, JavaScript, SQL, HTML, CSS
**Tools/Frameworks**: React, Tomcat, Spring, .NET, WCF, TensorFlow, PyTorch, Numpy, Keras, OpenCV
**Cloud/Databases:** AWS RDS, GCP, ElasticSearch, Firebase, MySQL, MongoDB, NoSQL, PostgreSQL
**Mobile:** Android Studio, XCode, Swift, Flutter

## WORK EXPERIENCE

**Software Engineer Intern, *Stoneye.ai*, Sunnyvale, CA** May. 2023 - Present

- The team of TinyTalk App, a multimedia storytelling app serves parents & children by leveraging large generative AI models.
- Contribute to the development of automating the open-source generative AI flow based on application design.
- Specifically worked on prompt engineering and REST transmitting of language model & image model.
- Research, experiment & perform output verification, data wrangling, content security, and abuse prevention.
- Imagining, Prototyping, and adopting new features between models and the integrated mobile frontend via Flutter.

**Technical Designer, *Gensler*, San Jose, CA** Dec. 2021-May 2023

- With the Google Landings HQ envelope team, generated innovative design & technology solutions.
- Iterated implementations of existing functions of internal tool of efficiency “sheet note manager” by C++.
- Improved the processing time of designate operations by over 90%, saving cost of billable labor by 10+ hr.

**Designer, *LSM*, Washington, D.C.** Jun. 2020-Dec. 2021

## EDUCATION

**Georgia Institute of Technology**, Atlanta, GA M.S. Computer Science - **GPA: 4.0** 2023 - 2025
**Columbia University**, New York, NY Master’s degree - Architecture
**Sun Yat-sen University**, Guangzhou, China Bachelor’s degree - Engineering

## PROJECTS

**Job+: AWS-based Web Service Development – Job Recommendation Engine** *(Passion)*

- Developed an interactive web page for users to search job positions (AdzunaAPI, HTML, JavaScript, AJAX)
- Used favorite records to provide a personalized recommendation.
- Created Java servlets with **REST** APIs to handle HTTP requests and responses
- Built **MySQL** database on **Amazon RDS** to store accurate business data from Ticketmaster API
- Designed algorithms (e.g., **content-based** recommendation) to implement business recommendation
- Deployed to **Amazon EC2** and used Apache JMeter to perform load test (150 QPS).

**Realm: a Spring-Based Online Shopping App** *(Passion)*

- Built a web app based on **Spring MVC** to support item search and listing(dependency injection, inversion of control, REST).
- Implementing security workflow via in-memory and **JDBC authentication** provided by **Spring Security**.
- Utilized **Hibernate** to optimize database operations.
- Developed an order fulfillment system by **AWS Lambda** & **AWS Step Functions**.

**NBA Viz: React JS-based NBA Player Strength Visualization** *(Passion)*

- Created a dashboard using **React, D3,** and **Ant Design** backed by data crawled from **stats.nba.com**
- Visualize individual players’ shot data, including a shot chart and user profile view.
- Created multiple extra filters and shot themes(hexbin and scatter) to provide more customized visualization on the shot chart.
- Developed an autocomplete player search bar providing a list of players in the suggestion list.

**DrivA: LBS-based Android App for smart driving** *(Passion)*

- Developed an **Android** App for users to post alerts and receive nearby alerts such as speeding, police, traffic, drunk, etc.
- Integrated **Google Map** API to display the nearby hot alerts and navigate to avoid traffic.
- Used **Google Firebase** to store and manage UGC including comments, images, descriptions, titles, and geolocations.
- Improved the UI/UX flow with **Animation**, ToolBar/ActionBar, etc.
- Implemented the view pager to hold the login and register fragments.
- Utilized Android Broadcast Intent to handle inter-communication between drivers and passengers.
- Handled the speed recognition intent to handle simple voice control.

**A CNN-based Gesture Control Smart Home Portal** *(Academic)*

- Developed a smart home app that allows gestures to control appliances. Gestures are pre-trained from user-uploaded videos.
- Based on the supervised CNN model and the feature extractor using API from OpenCV, developed the app by Android Studio.
- Worked independently during the entire training, testing, and design/development process from ideation to deployment.