Kelvin Yu

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WORK EXPERIENCE

Head of Android Engineering
Bending-X – Mountain View, California   Jan 2022 - Present
- Lead the complete lifecycle of Android app development for IPTVX applications across TV, tablet, and phone platforms, driving the vision, design, and execution to deliver cutting-edge user experiences.
- Drive the technical vision and strategy for IPTVX Android apps, ensuring alignment with emerging trends and business goals in a fast-paced startup environment.
- Establish and maintain robust coding standards and practices, ensuring app stability and scalability despite the fast-paced nature of development.

Software Engineer
Google LLC – Mountain View, California   Mar 2019 - June 2023
- Android lead for camera related features in Google Home app.
- Android Engineer for security related features such as Doorbell, Lock, Nest Guard etc.
- Infrastructure work such as dark theme adaption, dagger to hilt migration, build time optimization.

Software Developer   Jan 2018 - Mar 2019
Pixured Inc – Fremont, California
- Design and implement chat and live stream feature on android with xmpp protocol
- Plan, design and develop live stream feature on web with Angular
- Design and implement custom camera on android with beauty filter and cartoon emoji overlay, optimized camera performance
- Design and develop backend administration system and developer site using Vue.js and write unit test
- Redesign and implement cleaner and better web UI with material design

EDUCATION

University of California Irvine – Irvine, CA   Sep 2013 - Sep 2017
B.S. Degree in Computer Engineering

SOFTWARE SKILLS AND EXPERIENCE

Java Web Service Development – Restaurant Search and Recommendation
- Developed a dynamic web page and Android app for users to search restaurants and update preference
- Improved personalized restaurant recommendation based on search history and favorite records

Back End:
- Created Java servlets with RESTful APIs to handle HTTP requests and responses
- Built relational and NoSQL databases (MySQL, MongoDB) to capture real restaurant data from Yelp API
- Designed algorithms (e.g., content-based recommendation) to implement restaurant recommendation
- Deployed server side to Amazon EC2 which is able to handle 150 queries per second tested by Apache JMeter.

Front End:
- Designed an interactive web page utilizing AJAX technology (HTML, CSS and JavaScript)
- Developed an Android mobile app for users to search restaurants based on locations

Undergraduate Research – GPU Kd-tree Traversal
GitHub: https://github.com/KelvinYYY/
- Implemented autorope traversal for parallelism
- Analyzed performance with guided and unguided traversal
- Implemented lockstep traversal to improve throughput of Kd-tree traversal on GPU
- Performed CPU vs GPU tests for NN(nearest neighbors) and kNN problems

The Galaxy – Solar System on Android with OpenGL ES
- Animates the motion of the planets and simulates surface texture and clouds
- Simulates lightening and reflection according to camera position
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SKILLS

Programming Language: Java, Kotlin, C, C#, C++, Go, JavaScript, Typescript, Ruby, Python, MySQL, PHP, CUDA, HTML, Assembly
Framework: Angular, .NET, Node.js, React.js, Vue.js, Ruby on Rails, Spring, Spark
Computer Science: data structures and algorithms; object oriented programming; distributed systems design and development (MapReduce); parallel programing with OpenMP, OpenMpi, Pthread, and GPU
Databases: relational databases (MySQL) and NoSQL databases (MongoDB)
Data Science: strong in mathematics, statistics, and probability
Languages: strong written and verbal communication skills in English and Chinese

Math and Computer Science Rewards:

Certificate of Distinction in AMC(American Mathematics Competition)
Second prize in Chenxingshen National mathematical contest(Nationwide)
Second prize in Hebei high-school mathematical contest(Statewise)
Third prize in Hebei high-school computer science contest(Statewise)