DAVID LU

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EXPERIENCE

Sr. Software Engineer at Hedra - 2025

- Worked with a small team to build an AI video app in two months
  - Product owner for audio generation, gallery, voice selection/cloning, subscription services and credit flow among many other
  - Laid groundwork for frontend architecture and fixed an immense amount of bugs
  - Launch doubled revenue and tripled user base for Hedra
- Built core functionalities for AI-driven autonomous systems

Concept Artist at Nickelodeon - 2022 to 2024

- Designed props, backgrounds, characters and color keys for the Plankton Movie, Transformers EarthSpark and unannounced series

Software Engineer at Google – 2016 to 2022

- Responsible for building web app frontends and games on Google homepage (Doodles)
  - Hundreds of million of plays and centuries of playtime on aggregate
- Architect of Entity-Component-System game engine used in most large doodles
  - Directed team of artists and engineers in ECS development
- Designed and ported mobile native experiences for Google iOS App and Google Android
- Lead engineer and Game Designer for 2021 Doodle Champion Island Game
  - Primary designer for questing, dialogue, achievement and physics system
  - Developed several sports minigames and overworld game
  - Largest doodle in history in terms of scope, playtime and games played per day
- Lead Engineer on 2017 Hip Hop Doodle featuring DJ Turntable audio editor app
  - Implemented vinyl scratching interface, beat-matching functionality, multichannel crossfaders and mobile/chromeOS multitouch
- Project Lead and designer for 2021 Pizza Doodle and 2020 Wackeldackel Doodle

EDUCATION

University of Toronto at St. George, Computer Science – 2012 to 2015

- Honours Bachelor of Science, specializing in Machine Learning

SKILLS

Language: C++, C#, Dart, Java, Objective-C, Python, SQL, Swift, TypeScript
Frontend: CreateJS, Flutter, React Native, React, Unity, Vercel
Backend: AWS, Docker, FastAPI, Firebase, Flask, GCP, Kubernetes, nginx, Node.js, PostGres