

Yu-Huai (Dax), Chen

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github.com/DaxChen | [linkedin.com/in/daxchen](https://www.linkedin.com/in/daxchen) | stackoverflow.com/users/4997172 (1500+★, top 25%)

Education

University of Wisconsin – Madison Madison, WI
Master of Science in Computer Science Sept. 2018–May 2020 (Expected)

- GPA: 4.0/4.0
- Courses: Computer Graphics, Operating Systems, Big Data Systems, Computer Networks, PL & Compilers, Machine Learning, Information Security, Directed Study in Data Visualization.

National Taiwan University (NTU) Taipei, Taiwan
Bachelor of Science in Chemical Engineering Sept. 2011–Jan. 2016

- CS related courses: Networking and Multimedia Lab, Software Engineering, Data Structure, Programming.

Honors and Awards

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- **Plug and Play – Silicon Valley** Sunnyvale, CA
Startup Accelerator Apr.–June 2016
 - **1st Prize** Taipei, Taiwan
TMU Innovation and Entrepreneurship Competition May–June 2016
 - **12th Batch in AppWorks** Taipei, Taiwan
Startup Accelerator Jan.–June 2016
 - **Winner of Silicon Valley Long-Stay Program** San Jose, CA
*Taiwan Innovation and Entrepreneurship Center (TIEC),
Ministry of Science and Technology* Jan.–Mar. 2016
 - **NTU Garage** Taipei, Taiwan
Startup Incubator 2015–2016
 - **2 Enterprise Awards (Accupass & ALPHAcamp)** Taipei, Taiwan
NTU Hackathon 2015 July 2015
 - **Winner of 500k TWD Grant (~16.5k USD)** Taipei, Taiwan
NTU Diamond Seed Fund May 2015

Professional Experience

Software Engineer Intern (off-board infra team) San Jose, CA
WeRide.ai – Autonomous driving startup May–Aug. 2019

Project: 3D Simulation Visualizer and Debugging Platform (React, MobX, WebGL/Babylon.js, C++)

- Proposed and implemented a new front-end infrastructure library for multi-window layout manager, supports drag-and-drop/split/float/popup of panels and tabs, using ReactDnD.
- Built an online code-editor for users to prototype React components. Code transpile, evaluate, execute, and preview are real-time, using monaco-editor, bublé/babel-standalone, and React ErrorBoundary.
- Improved front-end performance drastically (bundle-size 26mb to 2mb; load-time 13s to 2s; FPS 10+ to 60+). Added features and fixed bugs including i18n, floating text, event-tracking, tree configuration editor.

Project: Passenger View & Onboard Passenger Kiosk App (Android, Java)

- Built an Android app with Kiosk-mode to prevent users from exiting the app, with hidden gestures for admins. Designed and implemented the passenger facing 3D visualizer, deployed on car backseat tablet.

Front-end Engineer (part-time, remote) Taipei, Taiwan
Phoenix Technologies June 2018–Jan. 2019

Project: Distributed blockchain game base real-life sports events

- Developed a decentralized Ethereum DAPP using Vue, Ethereum Smart Contract and Web3.js.

Project: CoinIsland – Cryptocurrency exchange portal for more than 1000 pairs

- Designed and developed the front-end web app using Vue, PWA with offline support, and integrated more than 20 Exchange APIs.

- Built real-time trading tables with thousands of coin pairs. Implemented Cookie-based authentication, internationalization (Vue-I18n), and real-time price tickers.

Lead Front-end Engineer

Installments Inc.

Taipei, Taiwan
May 2017–July 2018

Project: *INSTO – recurring and installment payments platform*

- Developed and maintained the new company website and user-facing dashboard using Vue, Node.js, NGINX, and payment APIs. Crafted vibrant animations with GSAP.
- Enhanced loading performance by more than 30% by refactoring legacy codebase and adding Webpack. Enhanced websites to Progressive Web Apps (PWA) with offline support.
- Introduced Continuous Integration/Continuous Delivery (CI/CD) into existing workflow. Highly increased deployment efficiency.

Project: *INSTO Store – installment payment e-commerce platform*

- Developed a full-stack e-commerce platform using Nuxt.js. Integrated own payment gateway.

Software Engineer (compulsory substitute military service)

Ministry of Justice Taiwan

Taipei, Taiwan
July 2016–July 2017

Project: *Case management and document automation system*

- Developed new systems to automate legal document creation and analysis process using VBA, Sheet.js, Vue, Chart.js and Firebase, which enhanced document processing efficiency by more than 500%.

Co-founder & CTO

Clipo Inc. (Startup)

Sunnyvale, CA & Taipei, Taiwan
June 2015–Aug. 2017

Project: *Clipo – real-time knowledge management and sharing platform for students*

- Received approximately 1.5 million Taiwan Dollars (~50K USD) of funding from Taiwan Innovation and Entrepreneurship Center (TIEC) and NTU Diamond Seed Fund. Joined Plug and Play Silicon Valley, AppWorks and NTU Garage.
- Directed product planning and development. Evaluated and implemented company systems and infrastructures, including front-end, back-end, database, DevOps, user storage, DNS, hosting, email-exchange, and account services.
- Built a real-time, cross-platform web app and a Google Chrome Extension using React, Redux, ImmutableJS, Meteor.js, WebSockets, AWS EC2+S3, and Docker containers.

Projects

EmbeddingComparison – Data Visualization research to compare word embeddings

Jan.–Mar. 2019

- Replaced existing scatterplot with advanced binned-scatterplot to make the visualization more scalable.
- Built binned plots such as blend, point-glyph, pie overlay, bar overlay, color weaving, with D3.js and Vue.

NTU Library’s Modern Check-in Kiosk System

Oct. 2016–Jan. 2017

- Built with Electron.js Vue, D3.js, real-time GraphQL API by Apollo, Node.js, Express.js, MongoDB.
- Used SVG with D3.js to provide a Google-Maps-like seat map navigation experience that supports zooming and panning interactions.

SaySE – Language exchange and tutor matching platform

Mar.–Oct. 2017

- Built a dynamic web app for tutors and students to schedule classes, with real-time registration table, automatic time zone conversion, and email notifications.
- By using Serverless Architecture, infrastructure cost dropped to 0, with infinitely scalable API.

Drug-Herb Interaction Query Website for Taipei Medical University Hospital

June–Nov. 2017

- Independently built the website and a user-friendly content management system dashboard for non-technical maintainers to update the database, using Serverless Firebase, Vue, and DriveCMS.

Cat Fighter – HTML5 Top-down shooting Game

Feb.–Mar. 2017

- Independently built a 2D, top-down shooter game using Phaser.js, PIXI.js game engine, Box2D physics engine, Google Font API, and open game assets.

Skills

Languages: JavaScript/Node.js/ES6+, CSS/SASS, HTML, Java, C/C++, MATLAB, Python, VBA, LaTeX.

Frameworks: Vue, React/Redux, D3, Webpack, Web3.js, Serverless, Meteor, Express, Phaser, Firebase, PWA, A-Frame/Three.js, Electron.

Tools: AWS, Git, CI/CD, Docker, MongoDB, NGINX, Cordova, Vim.

IoT: Arduino, Raspberry Pi, ESP8266, various motors/sensors.