## Caitlin Chiang

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### Education

## Singapore University of Technology and Design (SUTD)

Singapore

Bachelor of Science in Design and Artificial Intelligence

Sept 2021 - Present

Minor in Computer Science and Digital Humanities

- Experienced in software engineering, AI, client-partnered projects, and academic research.
- Dedicated to crafting design-centric solutions and developing innovative software platforms.

# Work Experiences

## SOFTWARE ENGINEER, Moya | Singapore

Oct 2024 - Present

A startup focused on energy research and the impact of international collaborations on emissions reduction.

- Developed scripts to aggregate and calculate data from multiple CSV files, combining them into summarized formats such as abatement curves and comprehensive master CSV files.
- Analyzed abatement curves to identify trends and draw insights into potential emission reduction impacts through investments in various technologies.

#### **SOFTWARE ENGINEER**, Jublia | Singapore

Aug 2023 - Dec 2023

Events management company that enhances event engagement and networking through technology.

- Conceptualized and redesigned a user-centric homepage dashboard for improved usability.
- Refactored legacy codebase and converted key components into Vue.js dynamic modules.
- Developed automation scripts for regular database storage integrity checks.

#### **SOFTWARE ENGINEER**, SUTD campusX | Singapore

Jan 2023 - Dec 2023

Initiative to create a human-centric cyber-physical learning environment using data analytics.

- Collaborated with SUTD's faculty to design, develop, and deploy an Al-powered internal university software platform, with an aim to enhance student learning experiences.
- Conceptualized and designed the application's student-centric interface.
- Developed a dynamic, modular platform customized for specific course requirements.
- Designed the database system and defined the overall application architecture.

#### **SOFTWARE ENGINEER**, Dashlabs.ai | Philippines

Dec 2020 - Dec 2021

Y-Combinator accelerated startup specializing in medical software tailored for the Philippine healthcare sector.

- Mentored and led a team of seven developers in building comprehensive patient data analytics.
- Partnered with medical professionals and cross-functional teams (finance, sales) to design detailed data visualizations and analytics tools.
- Launched 30+ features to streamline workflows for medical professionals.
- Deployed 20+ visualizations, providing various insights to better understand patient data.
- Designed data aggregations to produce insights with meaningful correlations.

#### **SOFTWARE ENGINEER**, Philippine Red Cross | Philippines

Jul 2021 - Oct 2021

• Developed module-level testing scripts to ensure seamless software performance.

#### **SOFTWARE ENGINEER**, Dragonpay Corporation | Philippines

Jun 2021 - Jul 2021

Philippines' first payment gateway to enable non-credit card holders to make payments through bank transfers.

- Developed and deployed an internal health tracking application to monitor employee wellness.
- Launched an internal business expense tracking tool that streamlined the finance team's workflow.

#### FREELANCE SOFTWARE ENGINEER | Philippines

Mar 2020 - Jun 2021

Small Businesses: The Rolls Kitchen, The Busy Bee, Soren Apparel

- Collaborated with CEOs to design the website's user interface, aligning with strategic goals.
- Implemented e-commerce systems for both administrative and client-facing platforms.
- Designed the database structure and developed the overall application architecture.
- Conducted user experience research by engaging with users to refine and enhance the website.

# **Academic Client Partnerships**

## Urban Redevelopment Authority (URA)

Sept 2024 - Present

Public Engagement Platform | Team Lead and Software Engineer

- Led a team of four to develop a public engagement platform enabling interactive consumer journeys, empowering users to transform their ideas into Al-generated images.
- Implemented advanced AI techniques, including inpainting and prompting, to enhance image generation capabilities.
- Designed a dynamic, modular application framework, customizable by administrators to meet specific engagement requirements.
- Translated application mockups into fully functional code, ensuring alignment with initial design and user experience goals.

## **Development Bank of Singapore Limited (DBS)**

Jan 2024 - May 2024

Queue Simulation Dashboard | Team Lead and Software Engineer

- Led a team of five to develop a web-based visual simulation dashboard, enabling bank managers to model and analyze queue management scenarios with configurable parameters.
- Designed the system architecture to ensure modularity and adaptability across branches.

### Procter & Gamble (P&G)

May 2023 - Aug 2023

Data Analysis Platform | Technical Lead and Software Engineer

- Led a team of six to develop a data visualization web application for P&G's R&D department, enhancing data-driven decision-making and insights into consumer behavior.
- Implemented automated CSV file uploads, enabling the application to extract, process, and visualize data across customized formats.
- Developed tools for researchers to compare data from various categories through timelines, graphs, and other interactive charts.
- Designed features to visualize complete consumer journeys, enabling trend analysis.
- Applied AI to analyze consumer-submitted photos, extracting hues and emotions to assess product impact and identify improvements, potential risks, and success indicators.

## Additional Information

## Technical Skills

- Frontend: Javascript, React.js, Typescript, Vue.js, HTML
- Backend: Node.js + Express.js, Next.js, Python 3, Django, Flask, Ruby on Rails
- Databases: MySQL 8.0, PostgreSQL, MongoDB, Firebase
- Query: Apollo GraphQL, REST
- Mobile: React Native
- Design: CSS, Material UI, Chakra UI
- Workflow Management: Snakemake
- Services: Amazon Web Services, Google Cloud Platform, Microsoft Azure, Cloudinary, Netlify
- Others: Git, Cypress.io