

# Karen Hao-Yi Tu

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## Education

**Carnegie Mellon University**, Mountain View, CA

January 2022 – May 2023 (Expected)

Master of Science in Software Engineering

- Selected Coursework: Foundations of Software Engineering, Software Verification and Testing (Java, Junit).

**New York University, Tandon School of Engineering**, Brooklyn, NY

January 2021 – July 2021

Preparatory Course for Graduate Studies in Computing

- Course topics include: Computer Programming in C++, Object Oriented Design, Discrete Math, Data Structures and Algorithms, Principles of Operating Systems, and Introduction to Computer Networks.

**University of California, Berkeley**, Berkeley, CA

May 2018 – August 2018

Summer Session

- Selected Coursework: CS160 User Interface Design and Development, Design Methodology
- Awarded to one of the three design awards among 30 teams in the class of CS160 for a high-achieving design cycle.

**National Taiwan Normal University**, Taipei, Taiwan

September 2012 – January 2017

Bachelor of Arts, History, Cumulative GPA: 3.74/4.30

## Skills

**Programming Languages:** Familiarity with WebDev Languages (HTML, CSS, JavaScript, jQuery), SQL

**Frameworks and Tools:** React, Redux, RESTful API, Node.js, Unit Test (Jest), Git, Webpack, L10n

## Professional Experience

**Trend Micro Inc.**

Taipei, Taiwan

Sr. Engineer

June 2019 – August 2021

- Developed Trend Micro Activation Service and credit-based licensing service UIs using **React** and **Redux** to help 7,000+ business customers activate and track the usage of their solutions.
- Migrated from multi-page to single-page web app which boosted the activation success rate by 120% in 4 months.
- Launched an internal User Behavior Report dashboard which enabled executives and analytics team to make data-driven decisions on licensing business saved the manual time of work over 60%.
- Designed and implemented a platform with features of data visualization and role-based access control (RBAC) to advance EU and NABU teams channel business targeted on customers whose potential is 3.49 times higher.
- Ensured efficient user experience through paging loading and cache reduced the time of first contentful paint by 50%.
- Completed unit tests in **Jest** and **React Testing Library** ensured up to 100% coverage for new modules.
- Won 2nd place among 90 teams and 1,500 employees in an internal Customer Success and DevOps contest.
- Won 1st place among 20 teams in the Information System (IS) DevOps Camp.

**AppWorks School**

Taipei, Taiwan

Trainee

January 2019 – June 2019

- Selected as one of 9 trainees from 400+ applications for the non-CS background based on programming potential.
- Implemented four assigned and personal web apps which integrated with third-party payment service and Web Storage API using **VanillaJS**, **React**, and **Redux** in 75 to 80 hours per week of individual project-based training.
- Built real-time customer support service UI via WebSocket with Backend trainees under the agile development (SCRUM).

## Projects

**Full Stack Engineer, FSEChat – Web Application Project**

December 2021 – January 2022

- Developed interactive real-time chat app with features of sign-in, sign-up, chat posting, receiving, and history message viewing utilizing HTML, CSS, JSON, JavaScript, Express, joi, socket.io, and MySQL.
- Implemented the user authentication and messaging RESTful services based on Object Oriented Programming and Model-View-Controller (MVC) architecture.

**Front-End Engineer, Homie – Web Application Project**

February 2019 – March 2019

- Developed housework management app with features of OAuth login, account, and task management CRUD operation via React and Firebase.
- Visualized the task-rewarding system by plotting bar charts using D3.js to drive users with initiatives.

**UI Designer / Web Developer, NS WATCHER – Mobile Application Project**

February 2018 – February 2018

- Led design for 5,000+ downloads and 4.9/5.0 rated game price comparison Android application (NS Watcher) to help users figure out the best deals.
- Developed delightful and effective interaction through VanillaJS to build an introduction website for potential users.