

Kester Tan

Looking for Software Engineer Internship for Summer 2025

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🌐 <https://kestartan.github.io/kester/>

👤 KesterTan

🌐 tankester

Education

Carnegie Mellon University (Pittsburgh, Pennsylvania)

Graduating 2026

Bachelor of Science Computer Science + Information Systems

- **Grades/Honors:** Deans List High Honors
- **Relevant Coursework:** Distributed Systems, Computer Systems, Parallel Data Structures & Algorithms, Machine Learning, Application Design & Development, Probability CS, Software Engineering, User Centered Research & Evaluation, Functional Programming, Imperative Programming

Skills

- **Programming Languages:** Python, C, C++, TypeScript, JavaScript, Standard ML, Ruby on Rails, Java
- **Front-End:** React, Material UI, HTML5/CSS3, React Native, NextJS, TailwindCSS, Figma
- **Back-End:** ExpressJS, NodeJS, Flask, Socket.IO, MongoDB, MySQL, Docker, CouchDB, RabbitMQ, PostgreSQL, Redis
- **ML Technologies:** TensorFlow, PyTorch, NumPy, Pandas, Keras
- **Infrastructure:** AWS, Terraform, Bash, Linux (Ubuntu)

Experience

Amazon Web Services, Software Development Engineer Intern (Seattle, Washington)

May 2024 - Current

- Built standalone, localized feedback & sentiment analysis tool in Java, React & TypeScript, onboarded by 10+ teams to collect feedback on workflows
- Built metrics & event tracking tool using AWS CDK and TypeScript, providing cross-region teams in-depth user analytics
- Created validators in Java for backend APIs & custom Lambda functions with 100% coverage test coverage
- Built a social-media application for all AWS employees to share snippets of their life using React, DynamoDB, Cognito, AppSync, API Gateway & Lambda
- Configured custom events & metrics, displayed on CloudWatch dashboards using AWS CDK, used by product owners to monitor active user engagement

Autolab, Software Engineer (Pittsburgh, Pennsylvania)

Jan 2023 – Current

- Created File Manager feature from scratch using C & Rails, used by 100+ professors worldwide
- Created password-less login feature from scratch using Rails and MySQL, proving temporary logins for 500+ students
- Launched metrics feature used by 100+ professors to monitor and track student performance using MySQL & Rails
- Implemented user and developer caching that improved speeds by 60-80%
- Led cloud deployment for one-click installation using Redis, Docker, Amazon EFS, Lambda, EC2, CloudFormation & Cognito

IMDA, AI Data Engineering, Software Engineer Intern (Singapore, Singapore)

May 2023 – Sep 2023

- Engineered slack bot to automate EC2 instance creation using JavaScript, Terraform & AWS, used by 5+ engineering teams at IMDA
- Designed, developed, integrated & documented half of existing backend APIs using Python, Docker, Flask, CouchDB, RabbitMQ & S3
- Contributed to 30% of frontend codebase React & NextJS & researched on LLM & NLP models for GPTxLegal (summarization & Q&A tool)
- Architected testing pipeline & wrote unit tests to achieve >90% line coverage using JestJS

ZUZlabs, Software Engineer & Product Manager (Pittsburgh, Pennsylvania)

Aug 2022 – Aug 2023

- Led React Native team responsible for end-to-end mobile development
- Built marketplace & vendor interface used by local businesses in Pittsburgh using React, NodeJS & TypeScript

Hypotenuse AI (YC S20), Product Manager (Singapore, Singapore)

Jan 2022 – Aug 2022

- Pioneered & scaled company 2nd largest growth channel
- Launched an event tracking system to drive in-depth data app analytics, business decisions & customer acquisition campaigns
- Designed, improved & created webpages that ranked on the 1st page of Google using Figma & Webflow
- Improved auth systems to reduce spam & fake account creation by 30%

Projects & Clubs

Amazon Alexa AI Social Bot Challenge

Aug 2022 – Aug 2023

- The only undergraduate chosen to represent CMU in a group of 5 (2 PhD students & 2 master students)
- Evaluated LLMs & wrote Python scripts to collect data for prompt tuning

CMU Blockchain Club, Head of Marketing & Engineering

Aug 2023 - Current

- Lead 2 teams of 10 engineers to build decentralized applications (Ethereum node validator, decentralized blogging website & variable lending pool)

Singapore Students Association, Head of PR

Aug 2022 – May 2024

- Automated successful email & marketing campaigns for more than 100+ students

CMU Business Technology Group, Software Engineer

Aug 2022 – Mar 2023

- Built React application for students to network and view course paths of upperclassmen

Project Innervate/Axon, Founder

Jun 2016 – Mar 2020

- 1st at International Future Problem Solving Conference, used Python to automate a Parkinson Disease Simulator, used by 1000+ people

HowYa!

Sep 2022 – Oct 2022

- Built mobile journal entry with sentiment analysis using Swift, NodeJS, Prisma ORM, Cockroach DB & Keras

Reversi.AI

Sep 2022 – Dec 2022

- Built a multiplayer AI Reversi game with Monte Carlo & Minimax algorithms using Python & Sockets