

# Tian Yang

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## Experiences

### Software Engineer

#### Google

📅 Mar 2019 –   📍 San Francisco, CA, USA

- Focused on building software, infrastructure, harnesses, and tooling to help improve engineering velocity and product excellence. Design and build advanced automated build, test and release infrastructure, drive adoption of best practices in code health, testing, and maintainability, analyze and decompose complex software systems and collaborate with cross-functional teams to influence design for testability.

### Assistant QA Engineer

#### Direct to Consumer, BT/IT Solutions, Lenovo

📅 Jul 2015 – Sep 2015   📍 Beijing, China

- Performed QA work for the revamped web, mobile web, iOS, and Android versions of Lenovo China online store with a new loyalty program as well as the backend content management, inventory, and order systems. Prepared test plans and test cases. Wrote Selenium tests to identify defects and areas for enhancement. As the third member of this new team, help introduced practices from the Agile development model.

### Tutor

#### Computer Science and Engineering, UC San Diego

📅 Sep 2015 – Dec 2016   📍 La Jolla, CA, USA

- In charge of moderating and answering questions on online forums for *Intro Java* as well as *Advanced Data Structure* courses. Held tutor hours in computer labs to help students learn the materials and debugging skills. Graded students programming assignments and exams and provided feedback. Produced sample exam answer keys.

## Projects

### CSE Course Companion

- An interactive study tool with multiple choice, fill-in-the-blank, and C language code exercises REPL that provides detailed feedback to help non-CSE majors learn programming concepts. Identified risks, collected requirements, defined scenarios, built and tested the product, and iterated based on feedback. Created Vue components, designed and implemented API with Node, Express, and MongoDB. In charge of the DevOps pipelines.

### Project Pong

- A 3D multiplayer Ping Pong simulator using Oculus Rift and Leap Motion written in C++. In charge of implementing Anaglyph 3D using framebuffers and shaders, and networking using rplib. Contributed to the gravity and collision physics code.

### UCSDNav

- Wrote an iOS app in Swift to help me and other UCSD community members look up restaurant menus, on-campus retail outlets hours, and track shuttles. Listings are retrieved from a JSON file that is generated from scrapping the UCSD website.

### Project Titanic

- A ship simulator where a player controls a ship on water and attempts to avoid collision with terrain, while trying to pick up as many buoys as possible. In charge of implementing the procedural terrain generation and audio engine in C++ using modern OpenGL with GLSL shaders, as well as OpenAL.

## Education

### M.S. Computer Science

#### University of California, San Diego

📅 Sep 2017 – Dec 2018

### B.S. Computer Science

#### University of California, San Diego

📅 Sep 2013 – Jun 2017

## Skills

### Languages

C++   Python   Swift   Java  
HTML   C   modern JavaScript  
CSS   OCaml   Haskell

### Technologies

Git   Unix   HTTP  
NodeJS   modern OpenGL  
gRPC & protobuf   MPI  
LLVM IR   PostgreSQL

### Courseworks

Data Structures   Software Tools  
Discrete Mathematics  
Computer Architecture  
Software Engineering Methods  
Design & Analysis of Algorithms  
Operating System  
Networked Systems  
Compiler Design  
Parallel Computation  
Database and JSP  
Artificial Intelligence Principles  
Learning Algorithms  
Recommender System  
Digital Logic Design