



# DUY ANH NGUYEN

Software Engineer

## PROFILE

Animal lover && climate  
tech enthusiast

## CONTACT



[Site Portfolio](#)



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Willing to relocate

## EDUCATION

University of California,  
San Diego (UCSD)

B.S. **Computer Science**

June, 2023

## SKILLS

- Java, JDBC
- C/C++
- OpenGL
- Computer Graphics, Computer Animation
- Python
- Android
- CI/CD
- HTML/CSS/JavaScript/React
- SQL/MySQL/PostgreSQL
- Testing (unit, integration, e2e)
- Behavior Driven Development (BDD)

## EXPERIENCES

### North Island Credit Union - Summer 2022 Internship

- Performed SQL commands to contribute to System Design
- Created automated **Selenium** tests using **Java**
- Created a **Jenkins** job to execute unit tests in a **CI/CD pipeline**
- Standardized template to document new **user stories** to test new features/RBAC user flows
- Managed tasks through **agile sprints** using **Jira**

### Android Mobile Application

- Worked in a team of six to develop a social application to find friends taking the same classes using an **Agile** sprint process and **BDD**.
- Developed **Object-Oriented** to
- Performed CRUD queries against Android **SQLite** Database
- Tested with **Espresso** and **JUnit**.
- Designed and implemented frontend views

### Computer Graphics and Animation (C++ and OpenGL)

- Applied scene graph and **matrix stack** to build a scene and performed **per-pixel** shading computation (**Phong shading**) with light source on objects
- Wrote a program that loaded a keyframe animation from an .anim file and played it back on a skinned character. The program is also able to load any .skel, .skin, and .anim file
- Wrote a program **simulating a piece of cloth** made **from particles, spring-dampers**, and **triangular surfaces**, including the **effects of uniform gravity, spring elasticity, damping, aerodynamic drag**, and simple **ground plane collisions**.
- Implemented **ImGui** to the program that allows user to interact.

### Web Development:

- Built persona diagrams and wireframes to develop, test, and deploy a personal portfolio using **HTML5**, **CSS3**, and user centered thinking
- Created accessible, responsive, and functional **UI** to allow users from any device to have the same perfect **UX**
- Designed and developed **custom dialogs** using variety of **DOM** methods in **JavaScript** to create **CRUD** features
- Utilized **GitHub** and **Netlify** to host the site.

## PROJECTS

### DNA Application

- Computed the distance between pairs of DNA sequence, transmission clusters using **C++**
- Designed graph with weighted nodes and identified connected components based on a threshold

### Life of Cells

- Created a modified version of Game of Life using **Java**. Each cell embodied different traits and behaviors that were capture through **interfaces** and **polymorphism**.

### Maze Solver

- Identified the shortest path out of a maze on a weighted and unweighted board using **Java**