# Alan Chiem

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## EDUCATION

**University of California, Berkeley** · Berkeley, CA
*Bachelor of Arts in Computer Science* · *Aug. 2019 – May 2023*
**Relevant Coursework:** Data Structures and Algorithms, Computer Architecture, Artificial Intelligence, Efficient Algorithms and Intractable Problems, Software Engineering, Computer Graphics, Database Systems

## SKILLS

**Programming:** Python, Java, C, Swift, SQL, HTML, CSS, JS **Developer Tools:** Git, VSCode, XCode, IntelliJ
**Languages**: English, German, Japanese, Vietnamese

## EXPERIENCE

**Mobile Developer Intern** · Jul 2022 – Sep 2022
*PlayPart* · *Remote*
- Enhanced implementation and development of native **iOS** sports app that raises environmental awareness.
- Worked on bugs, documentation, and tests in order to unblock team and increase their performance.
- Learned basics of **Ruby-on-Rails** through educational Udemy course provided by company.

## PROJECTS

**Volumetric Scattering** | *C, CLion* · tinyurl.com/CS184Project
- Collaborated with small team to implement **pathtracer** that can render scenes containing participating media such as fog, smoke, or dust.
- Troubleshooted with various problems dealing with number of light bounces and ray termination.
- Built website using **HTML** to extensively document entire process in detail.

**Watr** | *Swift, Xcode, Lottie Animation* · tinyurl.com/IOSwat-r
- Designed and developed **iOS** productivity app which visually tracks time with water.
- Integrated LottieFiles API to provide minimalist animations using **Swift** and Xcode.
- Constructed interesting and unique way for users to track the amount of time they spend on tasks.

**Notes** | *Postman, MongoDB, Express, Alamofire* · tinyurl.com/ACnotesapp
- Implemented **CRUD** (create, read, update, and destroy) functionality for notes app.
- Set up my own **Mongo database**, web server and API endpoints using Express JS.
- Experimented using different new technologies on lightweight **full-stack** application.

**Pacman AI / Neural Networks** | *Python3* · tinyurl.com/CS188Projects
- Programmed Pacman using AI concepts such as informed state-space search, probabilistic inference, and **reinforcement learning**.
- Extended alpha-beta pruning logic appropriately to multiple minimizer agents and implemented expectimax agent for sub-optimal adversaries.
- Trained **neural network** to classify hand-written digits and another to identify various languages.

## ADDITIONAL EXPERIENCE

**Professional Guitarist** · Sep 2022 – May 2023
*Jaidon* · *San Francisco Bay Area*
- Performed around cities in San Francisco Bay Area as lead guitarist in indie-rock band.
- Established **quality teamwork** with band mates to achieve desired sound for each performance.
- Entertained live crowds upwards of 50+ people each night with **confidence**.

**Swim Coach** · Aug 2022 – Feb 2023
*UC Berkeley Department of Recreational Sports* · *Berkeley*
- Instructed beginner swim classes for children ages 5 - 10 at UC Berkeley's Strawberry Canyon pool using **patience** and **actively listening** to students.
- Led beginner swim classes for adults with **effective communication** and **friendliness**.
- Created **positive**, fun, and engaging learning environment for all, while also maintaining water safety.