

# Nathan A. Tjoar

nathan.tjoar@gmail.com | (619) 981-6145 | <https://ntjoar.github.io>

## Education

### University of California – Los Angeles

September 2019 – Mar 2021

- Bachelor's in Computer Science and Engineering
- Classes: Introduction to Cryptography, Software Engineering, Programming Languages, Algorithms and Complexity, Digital Electronic Circuits, Electrical and Engineering Circuits, Operating system Fundamentals, Statics and Strength of Materials, Elementary Fluid Mechanics, Dynamic Particles and Rigid Bodies
- Introductory Digital Design Laboratory, and Introduction to Algorithms and Complexity

### High Tech High – North County

August 2014 – June 2018

- President of Solar Boat Club, Part of the Business team in Science Olympiad, worked with UCSD CLEAR-CAICE research
- Directed a play, Played Hamlet in *The Complete Works of William Shakespeare (Abridged)*, and participated in MUN from 2013-2015
- Honors: Calculus, Biology, English 4, Humanities, Math, and Physics

### Palomar College

January 2015 – June 2018

- Classes: Trigonometry, Calculus I, Calculus II, Calculus III, Differential Equations, Linear Algebra, American Indian Studies 105, English 10, English 50, English 100, English 202, History 140, and History 141, Speech 100, Psychology 10
- Vice president of the International Student Club
- Taken Concurrently with High Tech High – North County

## Skills

- Coding Languages: Bash, C, C++, C#, CSS, Java, JavaScript, MySQL, PHP, Python, Shell, Swift, and Verilog
- Frameworks/APIs: Apple, dotNET, Google
- Technical Experience: Development Boards, Active Directory, Active Directory Federation Services, IIS Web Servers, LinuxOS, MacOS, WindowsOS, Windows Servers, Nexys Boards, Artix Boards, Office 365 Exchange Servers, SQL Server, System Center Configuration Manager, and Virtual Machines
- Experience in working with tools for computer science, electrical engineering, and mechanical engineering
- Fluent in Indonesian and English (Spoken and Written)

## Professional Experience

### Point Automotive

January 2020 – August 2020

#### iOS Developer

- Designing and building mobile applications for Apple's iOS platform.
- Collaborating with the design team to define app features.
- Ensuring quality and performance of application to specifications.
- Identifying potential problems and resolving application bottlenecks.
- Fixing application bugs before final release.
- Publishing application on App Store.
- Maintaining the code and atomization of the application.
- Designing and implementing application update.
- Storyboarded Tableview and UI for forms in the app
- Worked on EvoxImages API usage to get interior and exterior car design.
- Maintained Google Firebase database containing user data.

### InHouse Produce

January 2020 – Mar 2020

#### Software Engineer

- Improving system quality by identifying issues and common patterns, and developing standard operating procedures
- Enhancing applications by identifying opportunities for improvement, making recommendations and designing and implementing systems
- Maintaining and improving existing codebases and peer review code changes
- Liaising with colleagues to implement technical designs
- Investigating and using new technologies where relevant
- Providing written knowledge transfer material
- Using Micro python, developed and maintained a humidity system controlled by a microcontroller
- Maintained IoT structure in linking humidity system to central server
- Maintained AWS Dynamo DB system storing humidity data

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- Pushed Dynamo DB system through Amazon pipeline to migrate data to RDS

## UCPD

May 2019 – December 2019

### Community Service Officer

- Provided escort services in the evening for students going to and from campus in order to provide a safe environment for campus
- Conducted patrols throughout campus and dormitories, as well as in buildings, ensuring safety of items in the buildings and students in the buildings
- Performed emergency services in securing areas during times of crises
- Generated well written and thorough reports of patrols, to be read and approved by supervisors for future reference
- Acted as a liaison of UCPD, ensuring community connection to the department in a friendly manner
- Understands the importance of knowing building structure and topology, as well as Westwood geography

## IDE America's Inc.

May 2017 – June 2017

### Intern

January 2018 – May 2018

- Design, Implementation Updating and Troubleshooting of ESXi Server, VMware ESX 6.0/6.5 Hosts, VMware vSphere virtual center and windows virtual machines.
- Managed VMware ESXi hosts using vSphere client and Web client. Performing motion and storage vMotions. Creating Clusters for High Availability and Dynamic Resource Scheduling. Played a vital role in Creating Virtual Machines, Cloning virtual machines, VM-Provisioning (Linked clones, thin disks, de-duplication) taking Snapshots of virtual servers, HA, DRS, vMotioning.
- Experience in Installation and Configuration of ESXi, Single Sign on Sever (SSO), vCenter Inventory Services and vCenter 6.5 also install separation database with Postgre for each component of VMWare system.
- Created and implemented OPC Tags onto a developing desalination plant
- Configured and set up an ESXi host as well as multiple VMs
- Developed and application integration server for Wonderware
- Coordinated with operators on how the desalination system works

## E-Rehab

February 2017 – December 2017

### General Admin

- Managing project, opening and distributing mail, organizing files, and conducting general research.
- Edited, compiled and created video as junior videographer.
- As junior HTML Support, helped with creating page formats.
- Basic administrative duties, such as ordering office supplies and communicating with vendors and uploading testimonials.
- Other tasks include drafting documents and correspondence, preparing reports, proofreading, scheduling, providing telephone support and transcribing.

## Orion Martial Arts

August 2014 – June 2018

### Instructor

- Guides students and prospective students through the various levels of curriculum introductory, group and private Lessons. Is skilled in performing and teaching levels of curriculum up to and including 2nd Black Belt levels. Maintains a high level of enthusiasm and positive reinforcement in the classroom.
- Assisted with handling and teaching classes with children of special needs
- Solicits prospective students both inside and outside of the school by distributing guest passes, asking for referrals and using other prospecting techniques approved by school; records prospect information on prospect cards and files cards in an orderly system
- Assists Admissions Director in following up on all prospects with effective telephone and mail contact to help them to join.
- Assists Admissions Director in upgrading existing students to memberships of greater value by adding family members and converting Trial Memberships to Black Belt Club Memberships; conducts Progress Checks for prospective Black Belt Club Memberships.
- Providing instruction on grade-appropriate kata and kumite techniques.
- Informing students about the historical and theoretical underpinnings of these techniques.
- Fostering discipline and respect within the classroom.
- Supervising students to ensure that interactions remain safe at all times.
- Coordinates with Admissions Director to qualify prospective Black Belt Club students. Creates desire for all students to attain Black Belt levels.

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- Encouraging the appropriate use of techniques learnt, both within and outside of the classroom.
- Assists in keeping students and prospective students motivated throughout their lessons. Encourages students to maintain regular class attendance and regular practice at home.
- Providing lectures and demonstrations to parents, companies, and other members of the public to promote safety.
- Maintains complete knowledge of school history, philosophy, and policies; maintains thorough knowledge of local and national industry trends; maintains thorough knowledge of competitors, including location, curriculum, tuition, and promotion strategies – including instructing techniques.
- Assists in maintaining cleanliness and orderliness of school; maintains cleanliness and organization of classroom and locker rooms.
- Performs various other duties and assignments as necessary or required.

## Projects

### Bookstack Web Development - <https://www.uclabookstack.com/>

- Creating websites/a website using standard HTML/CSS practices and writing efficiency code.
- Create applications that address the phases of SDLC (software development life cycle)
- Develop comprehensive application testing procedures (QA Testing System)
- Update existing applications to meet the security and functionality standards as outlined in the company's website policies
- Implement testing tools that monitor the ongoing performance of the company website (user registration, book query systems and etc.)
- Assist in updating application development policies to ensure that all future applications meet the latest technical requirements
- Constant communication with other colleagues in the business to develop and deploy their content – and ensuring there is a clear establishment of what can be created within what timeframe
- Researching different software programs, maintaining software documentation
- Implementing contingency plans in case the website goes down
- Maintaining and expanding/enhancing the website once built
- Working on file handling system to support iOS HEIC files
- Generated support tickets for issues and bugs found in the system
- Worked on Regex parser for a book query system

### IBSA Web Development - <https://www.bruinsibsa.com/>

- Creating websites/a website using standard HTML/CSS practices and writing efficient code.
- Create applications that address the phases of SDLC (software development life cycle).
- Worked on MongoDB database system, populating with all available classes at UCLA
- Develop comprehensive application testing procedures (QA Testing System)
- Update existing applications to meet the security and functionality standards as outlined in the company's website policies
- Implement testing tools that monitor the ongoing performance of the company website (user registration, book query systems and etc.)
- Assist in updating application development policies to ensure that all future applications meet the latest technical requirements
- Constant communication with other colleagues in the business to develop and deploy their content – and ensuring there is a clear establishment of what can be created within what timeframe
- Researching different software programs, maintaining software documentation
- Implementing contingency plans in case the website goes down
- Maintaining and expanding/enhancing the website once built
- Managing/coordinate a team might also be part of the job role on backend development of club website to cater.

## Honors and Awards

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|---|---|
| • GCMUN Student Representative from San Marcos                                    | • Outstanding delegate in High Tech High MUN Conference |
| • City of San Marcos Acknowledgement of Academic Achievement for GCMUN Conference | • 2 <sup>nd</sup> Degree Black Belt in Tang Soo Do      |
| • Diamond in the Rough award for soccer   | • Best Procedural design in CLEAR-CAICE Conference 2016 |
| • Experience at Wonderware Spring 2018 SoCal User Conference                      |   |