# Thomas Ngo

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## EDUCATION

**California State University, Fullerton**      **Fullerton, CA**
*Master of Science, Computer Science*      June 2021
Academics: Overall GPA: 3.81

**California State University, Fullerton**      **Fullerton, CA**
*Bachelor of Science, Computer Science*      December 2018
Academics: Overall GPA: 3.65

## TECHNICAL SKILLS

Experience in Web Development, Desktop Application and Software Engineering.
Programming Languages: Python, JavaScript, C#, SQL, C/C++.
Scripting Languages: Python, Bash, PowerShell.
Framework: ASP.NET Core, Express.js, Flask, Django, SWF (Siemens Web Framework), SWF3D, jQuery, Bootstrap, WinForms, WPF, Xamarin, Ruby on Rails, Teleik and Kendo UI framework.
Library: React, Lodash, Ember, Chart.js, Leaflet.js, Pandas, Matplotlib, NumPy, Scikit-learn, Request, Pillow, Keras, BeautifulSoup, Excel.js, Sheet.js.
Version Control: Git, GitLab, GitHub, Doug, SVN, AccRev.
Development Tool: VS Code, Visual Studio 2022, SQL Server Management Studio, Azure Data Studio, Postman.

## CERTIFICATES

Certified AWS Cloud Practitioner on February 10, 2023
Certified SAFe 5 Practitioner on March 06, 2023

## PROFESSIONAL EXPERIENCE

**SIEMENS**      **Costa Mesa, CA**
*Software Engineer*      August 2022 – September 2023

- Contributed to NX Mold Connect, the cloud counterpart of the NX Desktop Application.
- Introduced the Mold Cost feature using Siemens Web Framework (SWF) and Zeus NoSQL Datastore Service (NDS) for frontend and data persistence.
- Developed database service APIs with MongoDB and Express.js for Mold Cost Proof of Concept (POC).
- Implemented report view and file generation (xlsx format) using Excel.js and Sheet.js.
- Collaborated on the NX X Workspace project, integrating Siemens Teamcenter and Active Workspace.
- Utilized Siemens Starfield framework (Node.js) to create Reporting Service for report generation.
- Deployed Reporting Service on Siemens Xcelerator Container Runtime (XCR) with Kubernetes (k8s), ArgoCD, and Rancher.
- Established GitLab CI/CD pipeline for automated development processes.
- Implemented runtime property in BOM view to fetch and display external data in Teamcenter using BMIDE

**ETAP – Operation Technology, Inc**                                    **Irvine, CA**
*Software Engineer*                                          January 2022 – July 2022

- Contributed to the development of eWeb, HMIViewer, HMIDesigner, EtapApp projects.
- Implemented new features based on Incident Requests (IR) from the engineering team using C#, JavaScript, and SQL
- Conducted debugging and enhancements for internal tools, including ETConfig and Report Engine.
- Managed and maintained a Mobile Application developed in Xamarin, acquiring proficiency in deploying the application to TestFlight using both Xcode and Visual Studio.
- Expanded skills and knowledge in development across WinForms, UWP, and WPF platforms.

**United Parcel Service (UPS)**                                      **Remotely, MD**
*Software Developer Intern*                              June 2021 – September 2021

- Collaborated on the MDVA Dashboard project within an agile software development team.
- Developed Dispatch Time Usage and Map reports to visually represent driver data using jQuery and JavaScript libraries, including Chart.js and Leaflet.js.
- Conducted data analysis and implemented data visualization techniques for driver-related information.
- Created a Proof of Concept (POC) for the Dispatch Time Usage chart and Map report chart on CodePen. View sample showcase of the POC at https://codepen.io/tngo0508.
- Presented the POC to the team and director, gathering feedback for future refinement.
- Utilized DocFx for documentation purposes, ensuring comprehensive details of the implementation, and authored a ReadMe file for effective knowledge transfer.

**California State University, Fullerton**                          **Fullerton, CA**
*Computer Lab Assistant*                                 February 2021 – June 2021

- Participated in lab sessions for CPSC 120 and 121, actively assisting the instructor in facilitating the labs.
- Engaged with students by circulating and offering support with their assignments.
- Delivered helpful hints and guidance to students working on their C++ programming projects.

**Raytheon Space and Airborne System (SAS)**                       **El Segundo, CA**
*Embedded Software Engineer*                           January 2019 – December 2019

- Contributed to the software logistics and maintenance for a C-programming project involving an unmanned aerial vehicle (Global Hawk).
- Designed and executed various embedded system tests, including unit tests, Acceptance Test Procedures (ATP), integration tests, and stress tests.
- Prepared comprehensive documentation, including the final report, design review, and data analysis, utilizing MATLAB for thorough and effective communication of project outcomes.
- Developed a bash script to automate the installation of Coverity and conducted code base scans for static analysis. Identified potential issues such as dead code, resources and memory leaks, NULL pointer dereferences, etc.
- Created and modified CMake scripts to automate regression tests, streamlining the testing process for enhanced efficiency and reliability

**PERSONAL PROJECT**

**CodeTrack –** https://codetrack.azurewebsites.net/                      **Stanton, CA**
*A personal project using ASP.NET Core 7, as an MVC Web application focused on*   December 2023 – Present
*tracking problem-solving progress on Leetcode*

- Implemented frontend technologies such as Chart.js, Bootswatch Lux, jQuery, Toastr.js, SweetAlert, Lodash, and Typed.js to create a user-friendly interface.
- Employed Entity Framework for backend development, establishing a connection to the database and storing data. Utilized Microsoft SQL Server for local development.
- Integrated EEPlus library to generate report files in Excel Format, enhancing data analysis and reporting capabilities.

- Leverage SendGrid to automate email notifications for user registration.
- Deployed the application to Azure for efficient hosting and scalability.
- Demonstrated proficiency in full-stack development, combining frontend and backend technologies to create a comprehensive web application.

**Personal Website –** https://thomasngoswe.com/            **Stanton, CA**
*A Blog for refining writing skills, curating knowledge, and tracking personal progress*     November 2023 - Present

- Created and hosted a static website on GitHub.
- Customized posts and collections using the minimal-mistakes-jekyll theme.
- Cultivated creative Markdown skills through each post.

## COURSE PROJECTS

**Brand Value Analysis**         **Fullerton, CA**
*Capstone Project (solo)*     August 2021 – June 2021

- Built a full-stack web application that helps people to manage their financial investment and risk
- Developed the frontend using React.js and the backend using Django REST Framework (DRF)
- Performed data analysis using traditional Machine Learning Algorithms (KNN, GBN, SVM) on the scraped data

**FiteMiiIRL**         **Fullerton, CA**
*Web Frontend Development (team)*     April 2018 – May 2018

- Set up an Ember.js development environment and started an ember-based application
- Prepared computed property, action, and dynamic content
- Configured, managed, and added CRUD functionality for deployment on Google Firebase

**Sport Team Management**         **Fullerton, CA**
*Database Application Development (team)*     February 2018 – May 2018

- Led team to deliver a 3-tier software solution to keep track of information of sport team
- Conducted design of Database Schema and enforced User Authentication and role-based access
- Sanitized user's input and eliminated SQL or HTML injection vulnerabilities

**Minitweet**         **Fullerton, CA**
*Web Backend Development (team)*     February 2018 – May 2018

- Developed with the Flask microframework and adopted Cassandra or application-level sharding
- Identified and implemented the Web Service API follow principles of RESTful design
- Acquired working knowledge of foreman and NGINX to run multiple instances servers behind a load balancer

**Text In Image**         **Fullerton, CA**
*Python Development (solo)*     October 2017 – August 2017

- Developed a program to reconstruct images for hiding information with secret data
- Embedded data inside the least significant bit of each RGB value to minimize changes in visual representation
- Performed coding on Python with Pillow for manipulating image file formats