

CLARK JASON NGO

Duvall, WA · (425) 553-7113 · clarkjasonngo@yahoo.com

<http://linkedin.com/in/clarkngo> · github.com/clarkngo · freecodecamp.org/news/author/clarkngo · [@djijasonclark](https://twitter.com/djijasonclark)



TECHNICAL SKILLS

- React Native, FastAPI, MLflow, Gemma, ChromaDB,, Java, Spring, MVC, RESTful API, JavaScript, TypeScript, Python, Angular, React, Node.js, Express, MongoDB, NoSQL, SQL, Agile, Scrum
- English, Filipino/Tagalog, Hokkien, Mandarin

ENGINEERING EXPERIENCE

AI Engineer - City University of Seattle, Seattle, WA

Jan 2024 - Present

- Built a modular conversational AI pipeline using Retrieval-Augmented Generation (RAG), alongside a custom implementation of Model Context Protocol (MCP) to support dynamic memory, token window control, and context persistence.
- Enabled dynamic context management in multi-turn LLM workflows by integrating Claude Desktop with an MCP server and testing interoperability with other MCP-aligned tools.
- RAG-Based Chat Systems: Designed and deployed Retrieval-Augmented Generation (RAG) applications integrating LLMs (Gemma via Ollama) with ChromaDB for intelligent search and recommendations. Built CI/CD pipelines with GitHub Actions and deployed on Amazon EC2.
- Mobile Fund Transfer App Simulation: Built a secure mobile banking prototype using Flask and React Native simulating key modules like fund transfer, integrated with front-end review workflows in Jupyter Notebooks.
- Incident Ticketing System: Developed a lightweight Python-based ticketing platform for IT support simulation, designed for student use in audit and walkthrough exercises (IEEE 1028).
- KPI Dashboard & Risk Matrix: Engineered a visual feedback dashboard using React and Chart.js, connected to a Flask backend with live risk scoring, CRUD operations, and configurable service health endpoints. Included JSON-based data persistence and admin review features.
- Gamified Learning Apps: Created interactive React Native apps such as a zombie shooter and quiz combat game to teach state management, local storage (AsyncStorage), and dynamic UI logic using hooks.

Software Engineering - Zimensions, Inc., San Jose, CA

Jan 2024 - June 2024

- Built a system to integrate a car dealership web application to SuiteCRM.
- Technologies used: Python, SuiteCRM, Airtable, Amazon EC2

IT Consultant - Liberty Paper Inc., Manila, Philippines

Nov 2023 - Dec 2023

- Conducted a comprehensive analysis of existing IT infrastructure and processes to identify enhancement opportunities.
- Proposed and strategized the implementation of the following solutions: establishment of a centralized knowledge base for streamlined information access, utilize version control Git and cloud repository GitHub for software development, initiatives for customer service and HR modernization through ServiceDesk, ERP systems modernization using ERPNext for improved operational efficiency, and IT infrastructure upgrade by incorporating VPN and DDNS technologies.
- Led the development and execution of the company's strategic plan, aligning business objectives with KPIs to drive growth.
- Collaborated with cross-functional teams to ensure alignment between proposed solutions and business objectives.
- Technologies used: ERPNext, ServiceDesk, Airtable, Git, GitHub

Software Engineer II - eBay Inc., San Jose, CA (Contracting through BeaconFire, Inc., then Contracted to Brillio)

Aug 2021 – Sep 30 2023

- Reduced for mean time to identify root cause related to site impacting changes to advertising platform from 1 minute to 10 seconds.
- Continuously delivery of features for experiment metadata enhancement project with team size of 5 to enhance A/B testing monitoring.
- Analyze business metrics data inaccuracies, such as revenue clicks, impressions, etc. and work with team members to correct the data.
- Influenced different teams to follow guidelines on site impacting changes through gathered data.
- Involved in batch processing using Spring Batch framework to extract data from ServiceNow and other internal APIs and load into Elasticsearch.
- Designed Spring Boot microservices to decouple logic from existing monolithic applications.
- Developed and designed table view, search function, and validation rules to show changes metadata with React framework and Ant Design.
- Configured continuous integration and delivery of applications with Jenkins and eBay auto deployment tool.
- Performed on-call work and Root Cause Analysis (RCA) reported by Slack alerts, Grafana, and other monitoring systems.
- Involved in several interviews, onboarding, sprint planning, and code reviews.
- Utilized Git as local and remote version control platform, GitHub as remote code repository to track branch features and fixes and collaboration, and JIRA to track issues of the project.
- Used Maven to build projects and Log4j to log meaningful messages to pinpoint events and root cause when investigating.
- Technologies used: Java, Spring, Spring Batch, JavaScript, React,, Elasticsearch, Git, Docker, Jira, Confluence, Jenkins, IntelliJ

Software Engineer - Worldwide American, Cleveland, OH

Jan 2021 – Jul 2021

- Owned the software architecture and implementation of a social media ranking platform using React, Java Spring, and MySQL.
- Reduced response time of backend service by 80% through implementation of asynchronous and caching.
- Architected Microservices that include API Gateway, Composite Service, Core Service, Discovery Server, Config Server, Admin Server with Spring Cloud Netflix.
- Applied RabbitMQ for inter-server communication for fanning out changes in the config server repository.

- Configured AWS RDS instances with MySQL to connect in each core services.
- Deployed server on Amazon Elastic Compute Cloud (EC2).
- Performed Mockito for JUnit Test.
- Utilized Git as local and remote version control platform, GitHub as remote code repository to track branch features and fixes and collaboration, and JIRA to track issues of the project.
- Responsibilities include staff sourcing, new member onboarding, and building the authentication layer.
- Technologies used: SQL, NoSQL, Java SE, J2EE, Hibernate, Spring Basics (Core, MVC, Data Access), Angular, React, Spring Advance (Actuator, Security, Async, Repository, Caching), Spring Cloud (Microservices), Tools (SDLC, Git, Logging, Junit, Server)

Software Developer Intern - CodeDay CodeLabs, *Seattle, WA*

October 2020

- Enhanced RESTful API functionality and consumed by UI, written in MERN.
- Protected routes by integrating JSON Web Token (JWT) using Auth0.
- Technologies used: Express, Node.js, MongoDB, Auth0, GitHub, and Notion.

Amazon Apprenticeship Program Manager (Full Stack Systems Developer) - City University of Seattle, *Seattle, WA*

Jan 2020 – Mar 2021

- As part of Amazon AWS Military Apprenticeship Program, successfully managed yearly 17-week Program focusing on military veteran/spouse apprentices. Participants learned Linux system administration, networking, database technologies, programming, and full stack web development.
- Saved \$72,000 over 2 years, decreasing operational budget by 40% by introducing organizational efficiencies through optimizing instructor and teaching assistant workload.
- 93% of the participants moved on to OJT with the Amazon AWS Team.
- Led the development of courses for system administration, programming, database, full stack web development.
- Mentored and led 5 instructors and 5 teaching assistants.
- Technologies used: MEAN Stack, MongoDB, Express, Angular, Node.js, TypeScript, JavaScript, Python, MySQL, AWS, GitHub, Trello, Linux, Kali Linux, and Mendix. Project management methodologies used Kanban and Scrum.

Website Administrator Volunteer Intern - Concord Ventures, *Bellevue, WA*

July 2017 - July 2018

- Maintained WordPress website and database
- Conducted research on prospective clients, as well as potential buy-side leads.
- Examined news of current market and industry conditions.
- Managed various social media sites to drive traffic and increase market reach.
- Designed client teasers and infographics and advertise to potential buy-side.
- Trained to use Sage ACT CRM, DealNexus Intralinks, Axial, Bizbuy sell, etc.

ENGINEERING PROJECTS

Individual

Book Store Application: MEAN Stack

- Designed, implemented, and deployed a single page web application and deployed in AWS.

Music Store Application: Django

- HTML5, CSS, Python, Django, AWS MySQL, Azure SQL, Oracle Cloud Database, Amazon EC2
- Designed, implemented, and deployed a multi-page web application

Book Store Serverless Application: Amazon Web Services

- HTML5, CSS, JavaScript, AWS Lambda, Amazon DynamoDB

Book Store Serverless Application: Microsoft Azure

- HTML5, CSS, JavaScript, Azure Functions, Azure Cosmos DB

Firehose Project Applications: Yelp Clone, Video Streaming Platform, Automated Software Tests, Fluid User Interface

- Developed Ruby on Rails applications and applied MVC architecture, object-oriented programming principles, and test-driven development.

Collaborative

DoublePay, LLC., Software Developer

- Developed minimum viable product with Rails

Solutions Resource, Software Developer Intern

- Developed document repository prototype app with Alfresco Software with Solr, Lucene and Angular/CLI

NON-TECH PROFESSIONAL EXPERIENCE

Volleyball Varsity Coach – Sammamish High School, Bellevue, WA

Aug 2021 – Present

- Champion King County 2A 2021, 2022
- Coached high school and middle school girls teams and specialized in volleyball serves.

Volleyball Varsity Coach – Cedarcrest High School, Duvall, WA

Sep 2022 – Present

- Coached high school girls teams

Volleyball Club Coach – 15 Under Armor Grey	Feb 2021 – May 2022
<ul style="list-style-type: none"> Coached 15 and under girls team 	
Volleyball Coach – Odle Middle School, Bellevue WA	Mar 2022
<ul style="list-style-type: none"> Coached middle school boys and girls team 	
Basketball Junior Varsity Coach – Sammamish High School, Bellevue, WA	Sep 2021 – Dec 2022
<ul style="list-style-type: none"> Coached high school girls teams. 	
Computer Science Instructor – School of Technology & Computing - City University of Seattle, <i>Seattle, WA</i>	Jan 2020 – Mar 2021
<ul style="list-style-type: none"> Information Systems with Mendix Low-code Development Platform Database and Networking with MySQL and Wireshark Full-stack Web Development with MEAN Stack Programming with TypeScript/JavaScript Programming with Python and Machine Learning Information Technology Service Management Cybersecurity System Administration with Linux Operating System 	
Graduate Assistant – Technology Institute - City University of Seattle, <i>Seattle, WA</i>	2019 – 2020
<ul style="list-style-type: none"> Contributed to the development of Computer Science and Cybersecurity course content Courses: Introduction to Cloud Computing Graduate TA for Technology Institute courses 	
Site Operations Assistant - City University of Seattle, <i>Seattle, WA</i>	2019 – 2020
<ul style="list-style-type: none"> Promoted cybersecurity awareness. Managed Meeting Room Manager system 	
Records Assistant - City University of Seattle, <i>Seattle, WA</i>	2019 – 2020
<ul style="list-style-type: none"> Maintained PeopleSoft System and Microsoft Access database 	
Sushi Chef Assistant – Sushi Tei Authentic Japanese Cuisine, Philippines	May 2017
<ul style="list-style-type: none"> Assisted with food preparation for Japanese dishes that includes sushi and tempura. 	
Kitchen Assistant – Mu Noodle Bar, Philippines	Jan 2017
<ul style="list-style-type: none"> Assisted with food preparation for Chinese-Korean-Japanese fusion dishes that includes ramen, dumplings, and seafood. 	
Disc Jockey – Backyard UPTC and Club Haze, Philippines	Sep 2015 – June 2017
<ul style="list-style-type: none"> Resident DJ and played 80s, 90s, 00s, 10s, pop, dance pop, edm, house, progressive house, electro house, future house, bass house, tropical house, tropical bass, hip-hop, trap, twerk, and moombahton. Guest on Radio stations 94.7 Love Radio and 97.9 Home Radio Experience on private parties, corporate events, and wedding events. Mixtapes: http://mixcloud.com/djasonclark/ 	
Volleyball Coach – Chiang Kai Shek College, <i>Philippines</i>	Apr 2014 – June 2017
<ul style="list-style-type: none"> Won championships: 2016 Filipino-Chinese Amateur Athletic Federation (FCAAF) high school division Coached high school, middle school boys teams and specialized in volleyball serves and blocking. 	
Financial Analyst - Mandarin – S&P Capital IQ, <i>Philippines</i>	Feb 2013 – Aug 2016
<ul style="list-style-type: none"> Achieved a performance rating of “A”, exceeding performance, for 1,166,110 translated words for 7,230 data issues for over 3 years on Financial Information process translation. Translated native documents of publicly listed companies in China and Taiwan markets to English, their historical and transactional data. Formulated a template for Business Intelligence process translation. Created an extensive dictionary of Simplified and Traditional Chinese characters for financial, law and medical terms. Developed, enhanced and maintained Systran dictionary and other translation tools for consistency. Spearheaded a focus group to improve comprehension, team communication and collaboration between departments. Collaborated with USA and India team members. 	
Financial Analyst - Mandarin – Thomson Reuters Corp., <i>Philippines</i>	Sep 2011 – Jan 2013
<ul style="list-style-type: none"> Achieved an annual performance rating of 130% production and 99% quality. Extracted fundamental data from China, Taiwan, Hong Kong and Thailand listed companies and encoded in Voyager database. Translated Simplified and Traditional Chinese financial statements to English. Facilitated service requests of clients and ensured timely and complete resolution of queries from internal and external clients. Maintained and analyzed bugs and errors in the databases and provided recommendations for database validation checks. Sought efficiencies in work practices to achieve automation. Provided feedback on new database/application releases. Collaborated with Canada and India team members. 	
Financial Planner – First Life Financial Co., Inc., <i>Philippines</i>	Jan 2014 – Dec 2015

- Assessed financial health of prospects and gave financial advice based on the financial analysis made. Solicited business for the company. Products include: life, variable, and endowment insurance. Client facing.

Sales Associate – BPI/MS Insurance Corporation, *Philippines* **Nov 2011 – June 2017**

- Achieved 2.5 times the annual sales production quota for 6 years
- Implemented a spreadsheet database for sales, renewal and claims
- Created new business insurance sales for the company on Motor Car Insurance, Travel Insurance and Fire and General Liability Insurance for homes, buildings and commercial properties and businesses
- Assisted clients on requirements for application on insurance, claims and queries

Treasury Trader Intern – Philippine National Bank (formerly Allied Bank) **2010**

- Assisted in international and local trades in Foreign Exchange, Bonds, Stocks, and marketing to bank clients.

Distributor - Usana Health Sciences **2010**

- Sold nutritional drinks and supplements such as fish oil, cellular nutrition, antioxidant, vitamin C, vitamin B12, Coenzyme Q10

Executive Marketing Manager - Student Artists Manager, De La Salle University, Philippines **2010**

- Managed the marketing of the arts and solicit sponsors to events

Volleyball Coach – Xavier School, *Philippines* **Mar 2009 – Mar 2013**

- Coached high school, middle school and elementary boys teams and specialized in volleyball serves.
- Won championships: 2010-2012 Filipino-Chinese Amateur Athletic Federation (FCAAF) high school division and 2011 Philippine Athletic Youth Association (PAYA) grade school division.
- Won 1st runner ups: 2009 Filipino-Chinese Amateur Athletic Federation (FCAAF) high school division. Represented San Juan City for NCR Palaro (National Games).

Assistant Auditor – St. Jude College, *Philippines* **Mar 2007**

- Audited payrolls, tuition fees, discounts, financial statements, and accounts receivable. Verified the amounts using preset software programs to check the correctness of the software

Warehouse Worker – Divisoria Mall, *Philippines* **Mar 2007**

- Dealt with client purchase, moved large retail goods and checked the inventory.

BUSINESS AND PARTNERSHIPS

Owner – Fruit Factory, *Philippines* **2016**
Part Owner – URBN Club, *Philippines* **2015 -2016**

JOURNAL PUBLICATION

Ngo, C., Chang, J., & Chung, S. (2023). Decreasing the Barrier to Entry for an Open-Source Full-Stack Web Development. *ISCAP Conference*.

PROCEEDINGS

Ngo, C., & Chung, S. (2024). Enterprise AI Course: Cloud-Based Full-Stack DevSecOps with Retrieval-Augmented Generation. *UKC 2024 Conference*, 238.

Ngo, C., Wang, P., Tran, T., & Chung, S. (2020). Serverless Computing Architecture Security and Quality Analysis for Back-end Development. *Journal of The Colloquium for Information Systems Security Education*, 7 (1), 44.

CERTIFICATIONS

AWS Cloud Practitioner **December 2020 – December 2023**
 CompTIA Linux+ Certified **April 2020 – April 2023**
 The Firehose Project (Software Engineering) – San Francisco, CA **2019**
 Berklee College of Music (Ableton Specialist) – Boston, MA **2016**

EDUCATION

City University of Seattle – Seattle, WA **2025**

- Master of Business and Administration

City University of Seattle – Seattle, WA **March 2020**

- Master of Science in Computer Science (**GPA 3.9**)

De La Salle University – Manila, Philippines **April 2011**

- Bachelor of Science in Commerce, Major in Management of Financial Institutions

Chiang Kai Shek College – Manila, Philippines **June 2007**

- Highschool Diploma – English, Filipino/Tagalog, Fookien, Mandarin Taiwan and China curriculum

OPEN SOURCE CONTRIBUTION

Hackathon Starter - Boiler Plate for Node.js Applications: [Google Sheets API](#)

- Contributed Google Sheets API boilerplate code using JavaScript and Node.js to an open source project.
- Contributed to RedHat Agile integration with APIs & Containers Workshop documentation

HACKATHONS

- Open Source for AI Hackathon
- DoublePay at Techstars Startup Weekend Seattle 2019 – immersive experience as startup
- SnapSchedule at T-Mobile Hackathon - <https://github.com/clarkngo/SnapSchedule-FrontEnd-TMobileHackathon>
- AngelHack Seattle Hackathon 2018 - <https://github.com/clarkngo/CashCycle-AngelHack2018>
- Capital One Dev Exchange and Cortana - <https://github.com/clarkngo/PocketMoney-CapOneDevExHackathon>

TALKS/BLOGS

- ClarkTechSpeak: <http://bit.ly/2Pxf9II>
- Medium: <https://medium.com/@clarkjasonngo>
- Dev.to <https://dev.to/clarkngo>

ACHIEVEMENTS

- 2nd Place - Startupweekend Seattle 2019 -
- 1st Place - MBA Case Competition 2018 Case Study: Is Sony Corporation's Aibo: An Intelligent Decision?
- Runner Up - AngelHack Seattle Hackathon 2018

ORGANIZATIONS / CITY UNIVERSITY OF SEATTLE

- CityU Cybersecurity Club - President
- Smart & Secure Computing Research Group – Website Administrator
- Network & Security Lab – Network Administrator
- Secure Coding Club – Lead Developer

VOLUNTEER EXPERIENCE

- CodeDay Labs Software Engineer: Mentored College Students - 2024
- Empower Youth Network: Mentored HS Student - 2023
- Workshop Instructor: Data Structures and Algorithms with Python Workshop - Winter Break 2019
- FTP – School of Business and Technology – Executive Business for MBA visitors from Vietnam
- Mentor and Volunteer at CodeDay Washington
- LinkedIn Networking Event on New Tech Job Fair
- Applied Data Science and AI Workshop for visiting Shenzhen Polytechnic Faculty from China
- “For The Kids (Mini-Olympics)” - interacted and participated in games with special needs children.

UNPUBLISHED RESEARCH PAPERS

2019 Assessment and Approval based on Center for Internet Security's (CIS) Oracle MySQL Community Server 5.7

2019 Cyber Security Risk Assessment for Investment Bank

2019 Security Awareness for Financial Services

2019 Security Policy for Investment Bank

2010 Consumer Price Index, Money Supply, Exchange Rate and GDP by origin: Philippine Setting (2009 -1990) 2010 Analysis of Financial Performance, Position and Competitors: Hewlett Packard Company (2008 – 2006) 2010 Analysis of Financial Performance, Position and Industry Analysis: Lepanto Consolidated Mining Company (2008 – 2002) 2009 Inflation and Personal Consumption Expenditure (PCE): The Philippine Case (2009 – 2003) 2008 Analysis of Financial Performance and Position: Philippine Long Distance Telephone Company (2008 – 2004)

SEMINARS/TALKS/WORKSHOP ATTENDED

- .NET Core on Google Platform
- Add AI to Your Existing Apps with Azure Machine Learning

- Applied Data Science and AI Workshop
- Bringing Methodology Back to Cyber Security
- Bots in Containers (Docker)
- Building and Consuming Secure API with .NET Core and VueJS
- Creating a Road Erosion Model with Landlab
- Cybersecurity at Avanade
- Cybersecurity Threat Intelligence
- Getting Started with Octopus Deploy
- Google Cloud Summit
- Hackathon and Google APIs
- Hacking Appliances with Netduino and Xamarin
- Hardware Hacking Hands-on Workshop
- Image Masking and Cell Segmentation
- Intelligent Data AI / ML Symposium
- Intro to Data Analytics (MS Excel)
- JavaScript Performance
- Jazz Serverless Workshop by T-Mobile
- Manual Memory Management .NET Core
- Migrating your JavaScript to TypeScript
- One Day at Bootcamp – Python and Data Science
- Performance Analysis Cage Match! Map, Filter, Reduce vs Loops!
- Python Flask
- SAP Testing
- Seattle GitHub Inaugural
- Security in ASP.NET Core 2.0
- Software Developer Experiences at Microsoft
- Toward Cybersecurity Leadership Framework
- Understanding the Software Development Lifecycle
- UX Design 101
- What's in Your Toolbox
- Why Bots, Why Now (Chatbots) by Microsoft
- February 2008 IN THE ADVENT OF THE GLOBAL FINANCIAL MELTDOWN: WHERE IS THE PHILIPPINES SECTOR HEADING? - FINANCE FORUM Management of Financial Institution Association (MaFIA)