

ALEXANDER N. VILLASOTO

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EXPERIENCE

- **Software Engineer, Samsung Research & Development Institute Philippines (SRPH) (February 2021 - Present)**
 - Lead a project development of product promotion and analysis application in collaboration with Samsung's business presence in the Philippines.
 - Took part in the Agile Community of Practice that spearheaded the agile initiatives in SRPH through best practices.
 - Headed and participated several Expert Group projects which supported the CEO's mission of local business contribution in the country.
 - Participated in Robot Processing Automation (RPA) initiatives that automated repetitive tasks which accumulated up to 120000 hours' worth of time-savings in 2021.
 - Engaged with front-end developers, software quality assurance engineers, product owners and local business counterparts to facilitate feature requests and ensure quality and timely software delivery.
- **Lead Developer, Elite Worldgroup Services Inc. (March 2019 – February 2021)**
 - Managed a team of developers in realizing tasks, assigning features and estimating timelines of new and existing projects from planning to maintenance.
 - Extracted project requirements, decided the appropriate technology stack to use and communicate action plans to stakeholders and developers.
 - Developed internal tools for the company's document translation business that boosted productivity of project managers and sales representatives up to 90%.
 - Setup CI/CD workflows for the company's internal projects which increased development productivity by 50%.
 - Handled system administration tasks for security of company's cloud assets.
- **Lecturer, Central Luzon State University (January – May 2018)**
 - Taught Information Technology and Computer Science-related courses such as Wide Area Networks, Cloud Computing Technologies, and Data Communications with Networking.
 - Updated the program's numerous syllabi as well as their course materials in the University's response to nationwide K-12 transition.
- **Research Associate, Central Luzon State University (June 2016 – January 2018)**
 - Developed a cross-layer framework for channel load-aware routing protocol including its actual implementation in commodity hardware, enabling high throughput and congestion-free routing over wireless community mesh networks.
 - Supervised in developing data pipeline stages from data collection among wireless devices to data analyses, interpretations, and reporting.

EDUCATION

- **Bachelor of Science in Information Technology (July 1, 2016)**
Major in Web Applications Development
Central Luzon State University, Science City of Muñoz, Nueva Ecija

PROJECTS

- **Product Promotion and Analysis (PPA) (February 2021 - Present)**
 - Lead the development of feature requests and bug fixes to the SEPCO PPA that enables SEPCO salespersons to plan promotion and give insights based on allotted budget.
 - Technologies Used - Node.js, React.js, Express.js, Chakra UI, Knex.js, PostgreSQL, MongoDB, Redis, GraphQL, Apollo, Nginx, Bree.js, GitHub Actions, CircleCI, Ubuntu, Samsung Knox API
- **The Frame TV - Backend (April 2021 - Present)**
 - Lead the backend development of The Frame TV Designer, TV presenter, user and license management.
 - Technologies Used - Node.js, Express.js, Sequelize.js, Amazon Cognito, AWS Lambda, Amazon RDS, AWS Elastic Beanstalk, AWS S3, AWS ECR, GitHub Actions, Handbrake, ffmpeg, Ubuntu
- **Brity Works RPA (September 2021 - Present)**
 - Automated tasks like collection of meeting minutes and announcements with total time savings of 30000 hours.
 - Technologies Used - Brity Works RPA, JavaScript, Knox API
- **Sosho (July 2019 – March 2021)**
 - Implemented the backend portion of the online marketplace for resellers. Created the Sosho Admin Center <https://admincenter.sosho.ph>, Sosho Brand Center <https://brandcenter.sosho.ph>, Sosho Storefront <https://store.sosho.ph/> and the Sosho Website <https://sosho.ph>.
 - Technologies Used – Node.js, Express.js, Handlebars, AngularJS, Angular, MongoDB, Firebase Firestore, Firebase Storage, Cloud Functions, Google App Engine, Twilio, Algolia, Zendesk
- **Walmart Parser Tool (September – October 2020)**
 - Created a serverless parser tool for Walmart labeling project.
 - Technologies Used – Angular, TypeScript, SheetJS
- **Affinity (March 2019 - March 2021)**
 - Maintained a system that pools document translators and companies and designed the database schema, setting up Auto DevOps pipelines for developers for QA and deployment <https://project.translations.ph>.

- Technologies Used – Cradle PHP framework, MySQL, Redis, AngularJS, AWS S3, .NET Core, Angular, Entity Framework Core, Ubuntu, GitLab Runner
- **Website Creation and Maintenance (March 2019 – February 2021)**
 - Created and maintained new versions of <https://translations.ph> and <https://eliteworldgroup.com> websites.
 - Technologies Used – Angular, ASP.NET Core, Entity Framework Core, MySQL, Nginx, GitLab CI, Kestrel, Ubuntu, CentOS, Apache, Nginx, PHP, Google Analytics, Cloudflare, Lets Encrypt SSL
- **Project CTN Quotation and Invoicing System (March – October 2020)**
 - Developed a quotation, invoicing and PO system for CTN Packaging Corporation <https://ctn.translations.ph>.
 - Technologies Used – Node.js, Express.js, AngularJS, MariaDB, Sequelize ORM, Nginx, GitLab CI, Twilio SendGrid, AWS S3
- **Project Hermes Text Extractor (July – August 2019)**
 - Created an application that extracts words from files sent by clients to help the sales team estimate service charges when preparing quotations across multiple languages and multiple file formats <https://extractor.translations.ph>.
 - Technologies Used – Node.js, Express, Google Cloud Vision, AWS Textract, ABBYY
- **Project Alpha Ticketing System (March 2019 – February 2021)**
 - Implemented a ticketing system for garment assembly lines of Asiatex Corporation that includes client, product, worker, job order and payroll management and monitoring modules <https://ticketing.asiatex.ph>.
 - Technologies Used – Node.js, Express.js, Sequelize ORM, AngularJS, Code 128 compatible Barcode Readers
- **Image Segmentation and Large Rock Detection on Artificial Lunar Landscape Dataset (February – March 2020)**
 - Developed a an end-to-end PyTorch application to ingest artificial lunar landscape dataset. <https://github.com/anvillasoto/lunar-segmentation-openvino>
 - Technologies Used – Python, PyTorch, ONNX, Intel® OpenVINO™ Toolkit, Flask
- **Disease Detection Using Chest X-Ray Database (September 2019 – February 2020)**
 - In-charge of data preparation, upsampling and model deployment phases of the project.
 - <https://github.com/SGNovice/Disease-detection-using-chest-xrays>.
 - Technologies Used – Python, numpy, pandas, PyTorch, Flask
- **Cross-Layering Framework in Wireless Sensor Networks (July 2016 – January 2018)**
 - Lead the development of a cross-layer framework for channel load-aware routing protocol.
 - Technologies Used – C++, Linux Kernel, olsrd, TP-Link WN722N, Atheros Wireless NIC, Raspberry Pi 3

SKILLS

- **Web/Full-stack Development:** HTML5, CSS3, JavaScript, TypeScript, ASP.NET, ASP.NET Core, PHP, Node.js, AngularJS, Angular, React.js, Nest.js, MEAN, MERN, Chakra UI
- **Data Science/Machine Learning:** R, Python, Microsoft Excel, PowerBI, PyTorch, ONNX, Intel® OpenVINO™ Toolkit
- **Database:** MySQL, MariaDB, PostgreSQL, Microsoft SQL Server, Firebase, MongoDB, Sequelize, Mongoose, Entity Framework Core, GraphQL + Apollo
- **DevOps:** Git, Jenkins, GitLab CI, GitLab EE, CircleCI, GitHub Actions, AWS CloudFormation, Ansible, Terraform, Docker, Kubernetes
- **Systems/Network Administration** – CentOS, Ubuntu, LVM, NFS, Package Management, Apache, Nginx, HAProxy, AppArmor, SELinux, iptables, LDAP, PAM, Routing, Switching, Wireless Mesh Networks, DNS, OpenSSL
- **Cloud and Internet Services:** AWS, GCP, Azure, IBM Cloud, Heroku, Cloudflare, Linode, Twilio, Algolia, Zendesk, Zoho
- **Miscellaneous:** Agile Software Development, SDLC Methodology, Linux Kernel Programming, Hybrid Cloud

CERTIFICATIONS (<https://credly.com/user/alexander-villasoto>)

- **LFCE: Linux Foundation Certified Engineer**, June 28, 2021, Certificate Number: LF-7cklckdole
- **CKAD: Certified Kubernetes Application Developer** August 9, 2021, Certificate Number: LF-cezc3zc5jl
- **JSNSD: OpenJS Node.js Services Developer**, October 18, 2021, Certificate Number: LF-rzuc3a0yss
- **JSNAD: OpenJS Node.js Application Developer**, October 5, 2021, Certificate Number: LF-t2muhv4s93
- **LFCS: Linux Foundation Certified Systems Administrator**, September 15, 2020, Certificate Number: LF-b0kzz4gxte
- **LFCA: Linux Foundation Certified IT Associate**, January 29, 2021, Certificate Number: LF-5u3js7qy0v

TRAININGS

- **Artificial Intelligence Nanodegree**, Udacity, January - April 2021, Certificate Number: M9GHXHDDH
- **Introduction to Quantum Computing Course**, The Coding School and IBM Quantum, October 2020 - May 2021
- **Hybrid Cloud Engineer Nanodegree**, Nutanix, December 2020 - February 9, 2021, Certificate Number: KXCCKZWZ
- **Cloud DevOps Engineer Nanodegree**, Udacity, March – September 2020, Certificate Number 5XYFTACV
- **Intel® Edge AI for IoT Developers**, Udacity and Intel®, April-July 2020, Certificate Number ZXHYPGC7
- **Machine Learning Engineer Nanodegree**, Udacity, Kaggle and AWS, January-April 2020, Certificate Number QEGJN7U
- **Deep Learning Nanodegree**, Udacity, AWS and Facebook AI, September – January 2020, Certificate Number 6S3MHL6F
- **Data Science Specialization Certificate**, Coursera and Johns Hopkins University, Specialization Certificate earned on January 14, 2019

PUBLICATIONS

- CRADLE: Cross-Layer Design for Load-Aware Routing in IEEE 802.11-based Wireless Mesh and Sensor Networks, January 6, 2020 – DOI 10.1109/CCWC47524.2020.9031245