

CARLOS SALGADO

London, ON N5Y 4L5
<https://socd06.github.io>

csalgado@uwo.ca
www.github.com/socd06

TECHNICAL SKILLS

JavaScript; Python; AWS; HTML; CSS; XML; JSON; JQuery; SQL; Tableau; PyTorch; Bash; C/C++; GitHub; VBA; Jira; Ruby; Linux; Ubuntu; Markdown; Linux; Windows; Slack; MATLAB; SPSS; MS Office; MS Excel

EDUCATION

Master's Degree in Electrical Engineering August 2018

Western University, London, ON

Research Thesis Subject: Computer Vision in Biomedical Systems

Graduate Coursework: Advanced Digital Image Processing and Analysis; Medical Imaging Physics (MRI, X-Ray, CT, PET); Inferencing from Data Analysis; Statistics; Digital Signal Processing.

Bachelor of Mechatronics Engineering July 2011

National Technological Institute of Mexico, Mexicali, Mexico

Specialty in Automation and Control Systems

Undergraduate Coursework: Electrical Circuits; Pneumatic and Hydraulic systems; CAD; Networks; CAM Manufacturing; Embedded Software; Instrumentation; Robotics; Programming; Control (Block Diagrams)

CONTINUOUS EDUCATION

Nanodegree in Intel OpenVINO IoT Edge Artificial Intelligence April 2020 – July 2020

Udacity

Skills Covered: OpenVINO; Python; OpenCV; Computer Vision; IoT; Tensorflow; ONNX; Optimization; AI; System Integration; Image Processing; MQTT; Node.js; Publisher-Subscriber; Ffmpeg;

Professional Certificate in Applied Artificial Intelligence October 2019

Coursera, sponsored by IBM

6-course specialization; Python 3; Data Science; Computer Vision; Image classification; Deep Learning; Machine Learning; Cloud Data; Natural Language Processing; API; OpenCV; IBM Watson; REST APIs;

SOFTWARE PROJECTS

- DICOM Bone Volume Renderer. Renders bone geometry from computed tomography DICOM images using The Visualization Toolkit. C++; CMake; VTK; OpenGL; GitHub; Data Visualization
- Canadian Recalls Full Stack Web App: Interactive display of JSON government recalls and alerts REST API data. REST APIs; JavaScript; JQuery; HTML; CSS; JSON;
- Hospital Bed Capacity Flask Full Stack App: Interactive geospatial app that shows bed capacity of hospitals in a selected location, hosted with AWS. Python; JavaScript; HTML; CSS; AWS; bootstrap;
- Node.js People Counter Full Stack AI App. Image processing AI web app with pub-sub architecture, UI and video streaming using Intel OpenVINO and Tensorflow SSD model. JavaScript; Python;
- Private Natural Language Processing (NLP). Medical text data modeling and training of encrypted NLP text classification model using privacy protecting PyTorch libraries. Machine Learning; Python;
- Research Lab Web Page. Website Development using Jekyll and Bootstrap. Designed with HTML5 and CSS3 and hosted at GitHub pages. HTML; CSS; JavaScript; Ruby; Bootstrap; GitHub; Front-end;

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PROFESSIONAL EXPERIENCE

Writer - Volunteer December 2019 – Present

OpenMined, Remote

- Machine learning research writing (blogging) using Python notebooks, Markdown and HTML
- Data modeling and data mining of web-scraped medical text producing open-source natural language processing (NLP) dataset for privacy preserving machine learning research
- Localization of software and accompanying technical documentation to the Spanish language
- Collaborated with pull requests, issues and code review to open-source GitHub repository

Supplier Quality Engineer September 2018 – December 2019

Diamond Aircraft Industries, London, ON

- Attained savings of over \$250K USD by managing the return of product components to vendors
- Created vendor data analytics metrics dashboard Excel spreadsheets from ERP database SQL queries
- Tested and inspected incoming electrical circuits and electro-mechanical assemblies to ensure conformance with engineering drawings, product specifications and tolerances (GD&T)

Corrective Action Coordinator March 2015 – July 2016

Honeywell Aerospace, Mexicali, Mexico

- Managed the corrective action SAP Business Objects SQL database
- Implemented root cause analysis and mistake proofing achieving \$50K USD savings
- Failure analysis of electrical and hydraulic commercial and military hardware in accordance with engineering drawings (CAD) and schematics
- Planned and negotiated Return to Vendor logistics and Supplier corrective actions

Jet Turbine Quality Engineer January 2014 – March 2015

Chromalloy Southwest, Mexicali, Mexico

- Liaised customer warranty failure analysis, diagnostics and negotiation of component repairs
- Maintained the Quality Management System in accordance with regulatory compliance
- Provided technical support to Purchasing and Engineering
- Outlined standard operation procedures for component repair in accordance with engineering drawings (CAD), maintenance manuals and military and customer specifications

Insulation Design Quality Engineer December 2011 – July 2013

Triumph Group, Mexicali, Mexico

- Improved manufacturing quality yield from 50% to 93% using Business Intelligence techniques such as Design Review and Failure Modes and Effects Analysis (FMEA)
- Reviewed engineering blueprints (CAD) ensuring product conformance with manufacturability and customer requirements
- Developed data analytics by manipulation of from large datasets using MS Excel spreadsheets
- Presented Key Performance Indicators and forecasts to oversea key stakeholders