Oscar Morales Picazo

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EDUCATION

Tecnológico de Monterrey (ITESM/TEC)

BS. - Mechatronics Engineering

GPA: 92/100

Graduated in June 2021

TECHNICAL SKILLS

Javascript | NodeJS | React | SQL | Git | Terraform | Python | AWS | Jenkins | Microsoft Office | SolidWorks | Docker | PHP

LANGUAGES

English	-	TOEFL ITP score of 617
German	-	Elementary proficiency (A1)
Spanish	-	Native language

PROFESSIONAL EXPERIENCE

2022-Present   **Ellucian – R&D Software Engineer II**

Full-stack development for multiple SAAS services deadline-conscious. ReactJS development based on Figma designs. Created an AWS database migration script automated in Jenkins using Terraform. Improvement of RESTfull APIs to keep security standards and other requirements.

2021-22   **Ellucian – Associate Software Developer**

Following the SCRUM project management framework, I have been able to work on different issues and implementations from backend to frontend, allowing me to progress as a well-rounded software developer.

- Full-stack development of a new service to visualize applications and partners of Ellucian. Also, implemented a wizard to create new applications and publish them to the main service. Project made using ReactJS and Hapi.
- Maintenance of code: prevention of cyberattacks such as SQL injecting, optimization of code for faster runtime.

2021   **Ellucian - R&D intern**

Development of a metrics collector to migrate and process data from the company's RESTAPIs to Datadog (monitoring service for cloud applications), this collector was automated to be executed daily. This internship helped me to familiarize with development tools such as Docker, AWS, Jenkins, Postman, unit-testing, and NodeJS.

MAJOR SCHOOLS PROJECTS

2019   **Automatons for the improvement of industrial processes (team project) – VW Project**

Development of an autonomous cargo vehicle with Volkswagen de México as the training partner. The system used was based on ROS communication between a PC, PLCs (where all vehicle systems were controlled), and sensors. One of my contributions to this project was the installation and programming of encoders and Inertial Measurement Units to know the vehicle pose at any time.

2019   **Smart Industries (team project) – VW Project**

Project with the main objective of developing a continuous navigation monitoring system with Volkswagen de México as the training partner. Using LIDAR and ultrasonic sensors programmed with microcontrollers, sensors that work together with stepper motors, we were able to build a 360° mapping using Python on RaspberryPi. My major contribution to the project was the development of a code in Python that could map a 180° perimeter in closed spaces, as the 3D model design of the sensoring system installed in a VW Beetle used for testing.

SIDE PROJECTS

2020   **Motion Controlled Google Dino**

A personal project to get familiarized with Python OpenCV libraries. Using motion detection programming, I was able to detect actions as jumping, crouching, or standing still. Each time my computer detected any of these movements, it would send a command to Google Chrome to move its famous Google Dino.

2019   **Simon Says**

Developed in C++ language using MPLAB X to program a microcontroller, game with solo and versus mode, 10 different levels and buzzer melodies. The whole game was installed in a printed circuit board designed in Eagle.

COURSES

2021 – Coursera	Front-End Web Development with React by The Hong Kong University of Science and Technology
2021 – LinkedIn	AWS for Developers: DynamoDB
2021 – LinkedIn	Learning Docker
2021 – LinkedIn	OWASP Top 10 Application Security Risks
2020 – Coursera	Neural networks and Deep Learning course by deeplearning.ai
2020 – U. R.	Universal Robots e-Series CoreTrack.
2020 – Udemy	Introductory course to machine learning libraries in Python.
2018 – SolidWorks	CSWA Certification for mechanical design.