

OCTAVIO AUGUSTO ALEMAN ESPARZA

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Software Development and Computer Technologies Specialist with a solid experience in the creation of efficient and scalable technological solutions. Passionate about developing innovative projects that drive digital transformation in various industries.



- Portfolio -

EDUCATION

Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico City August 2020 - June 2024

B.S. in Computer Science and Technology

GPA of 3.72

Relevant Coursework: Development of software systems, analysis and design of advanced algorithms, integration of computer security in networks and software systems, implementation of computational methods, among others.

Instituto Tecnológico y de Estudios Superiores de Monterrey, Mexico City 2023

Minor Degree in Data Analytics and Artificial Intelligence

Gained a deep understanding of Artificial Intelligence, Machine Learning, and Deep Learning. Practical experience in turning data into powerful ML models. Utilized advanced Data Analytics libraries in Python to uncover insights and create innovative solutions.

Huawei Global Training Center, Hangzhou, China May 2024

Advanced Deep Learning Specialization

Selected to participate in the Infotec IA 1000 Learning Journey, an intensive Deep Learning training program after achieving one of the highest national scores on the Huawei HCIA-AI certification exam.

Relevant Coursework: Cutting-Edge AI Applications, Image Processing Theory and Applications, Natural Language Processing and Applications, Algorithm Basics of Scale Deep Learning and Digital Economy for Industry Innovation.

SKILLS

**Technical Skills:** Proficient in Python, C++, HTML, CSS; Familiar with JavaScript, Swift and SQL; Skilled in developing Machine Learning and Deep Learning models using Scikit-Learn, PyTorch and MindSpore; Experienced in Data Analysis and Visualization using Pandas, NumPy, Matplotlib, Seaborn, Plotly, Dash; Full-stack web application development using React, Django, Flask, FastAPI.

**Methodologies:** Agile, Scrum, Kanban, Lean Software Development, Spiral, Prototyping, Design Thinking.

**Tools:** Git, Postman, VS Code, XCode, Postman, Azure DevOps, JIRA, Microsoft Teams, Figma, Microsoft Office.

**Soft Skills:** Analytical capability, goal oriented, problem solving, effective communication, teamwork.

**Languages:** Conversational English (C1), Fluent German (B2) and Native Spanish.

PROJECTS

SENTINEL AI April 2024

- Development of an **ensemble method** combining multiple **Machine Learning** and **Deep Learning** models for Beiersdorf to prevent phishing attempts.
- Training of models using real data from the company databases, ensuring high accuracy and relevance.
- Utilized advanced Python libraries such as **Pandas**, **NumPy**, **Dash**, **Scikit-Learn** and **PyTorch** for **data preprocessing**, **model training**, as well as the development of a **graphical interface** with relevant KPIs.
- Deployment of the solution on Azure using **FastAPI**, leveraging **cloud infrastructure** for scalability and reliability.
- Implementation of the full pipeline from data collection and preprocessing to model training and deployment.

DRIVE AI June 2023

- Planning and development of a website for NDS Cognitive Labs following the ISO/IEC/IEEE 29148 standard.
- Business model, monetization and value proposition design.
- Development of the application interface using **React** with Styled Components and Vercel. Framework was developed in **Java SpringBoot** with **Docker**, **SQL** database. Implementation of **CI/CD** practices and deployment in AWS S3.
- System development using Agile methodology, tracking through **Azure DevOps**.

EXPERIENCE

CIBRUC , Mexico City August 2022 - June 2023

Coordinator, Student Engagement and Analytics

- Led and enhanced student engagement in campus activities by leveraging data-driven strategies and metrics to optimize participation and collaboration.
- Developed and implemented key performance indicators (KPIs) to assess and improve engagement levels, utilizing advanced data analytics tools to drive continuous improvement and achieve organizational goals.

CERTIFICATIONS

- Infotec IA 1000 Learning Journey (Huawei)
- Huawei HCIA – AI (Huawei)
- Leadership Diploma (Tecnológico de Monterrey)
- Academic IELTS - Band 8 (IELTS)
- Sprachdiplom der Kultusministerkonferenz (KMK)

RECOGNITIONS

- CENEVAL Award** of Excellence for achieving an **outstanding result** in the General Examination for Bachelor's Degree Completion (EGEL) in Software Engineering.