CAMPOS LOPEZ MAXIMILIANO

Bionic Engineer

CONTACT

Av. Instituto Politécnico Nacional#2579, 07369, México CDMX

Mobile: +52 5564343588

E-Mail: turtwigh@hotmail.com

WEBSITES, PORTFOLIOS

- LINKEDIN(Link)
- PORTFOLIO(Link)

CERTIFICATIONS

- Python (Basic)
- Neuronal Networks
- SQL Basic Course
- SQL Interactive
- SQL(Basic)
- SQL(Intermediate)
- UiPath
- Python (For Beginners)

SKILLS

- **Hard Skills: Programming Languages:** Python, C++, C#,MATLAB, Assembly **Libraries/Frameworks:** TensorFlow, Pandas, OpenCV, PyQt5,Numpy,SciPy **Tools/Platforms:** Eagle, MS Office, SolidWorks, Git, VS code,

PROFILE

A Bionic Engineer with a Ph.D. in Nanoscience, excelling in research, teaching, and technology development. Proficient in SQL, Python, and data analysis, with practical expertise in robotics, bionics, and medical device innovation. Skilled in multilingual communication, fostering smooth collaboration across international and interdisciplinary projects. Passionate about solving complex challenges and driving impactful results in cutting-edge technologies.

EDUCATION

Bionic Engineer, UPIITA-IPN, Jun 2020

Bachelor of Engineering in Bionic Engineering Instituto Politécnico Nacional, UPIITA, Mexico City. Graduated June 2020. During my studies, I specialized in various areas including Sensors and their applications, Image processing techniques, Machine learning algorithms, Computer vision systems, Circuit design and implementation. These experiences have equipped me with the skills and knowledge necessary to excel in the field of bionics.

Ph.D. Nanoscience's, ENCB-IPN, May 2025

Expected Graduation Date: May 2025
During my PhD, I specialized in the development of sensors and image processing techniques to fabricate a functional prototype. This research has further advanced my skills and knowledge in these areas, allowing me to contribute significantly to cutting-edge projects in the field of Nanoscience's.

WORK EXPERIENCE

Course Teacher, IPN University, CDMX | Mar 2025 - May 2025 working Saturdays.

- Professor of the physics course for new applicants to the IPN bachelor's degrees. Designed and implemented innovative teaching materials for physics, improving understanding and engagement among undergraduate students.

Bachelors Teacher, TecMilenio University, CDMX | Aug 2024 - Dec 2024

- Professor in the Robotics field for the final semester of the Mechatronics Engineering program. Developed innovative teaching methods to adapt to diverse learning styles, resulting in improved student engagement and participation. Guided students in capstone projects related to robotic systems.

UiPath, Arduino, Raspberry Pi, MPLAB
DataBases: SQL

- **Soft Skills:** Strategic Problem Solving in Bionics and Robotics, Multilingual Technical Communication, Leadership in Interdisciplinary Research Teams, Thrives in High-Pressure Situations with Adaptive Solutions, Lifelong Learning and Self-Motivation

LANGUAGES

Spanish: Native

English: Upper intermediate (B2)

German: Elementary (A2)

Japanese: Elementary(N5)

Bachelors Teacher, UACM University, CDMX | Aug 2024 - Dec 2024

- Professor at the Autonomous University of Mexico City, Mathematics Engineering Department Taught courses including Calculus and Statistics.

Bachelors Teacher, ICEL University, CDMX | Aug 2023 - Sep 2024

- Professor at ICEL University, Manufacturing and Robotics Engineering Department Taught final semester subjects including microcontrollers, sensors and actuators, and robot programming. Became the head of the robotics academy in January 2024.

SNI Research Assistant, CONACYT, CDMX | Aug 2019 - Dec 2022

- Participant in the research projects of different projects in the SNI researcher assistant program by CONACYT with Dr. Juan Méndez Méndez and Dr. José Jorge Chanona Pérez. Developed a digital imaging algorithm for the detection of objetcs and classification.

Intern, Hospital, Zacatecas | Aug 2018 - Aug 2019

- I spent my internship at the hospital where I learned how to diagnose equipment, and how to fix equipment, and to see how maintenance work was done on certain equipment.

PROJECTS/OPEN-SOURCE

JAM Participant, CDMX | Nov 2022 - Feb 2023

- Participated in Latix in a month-long JAM with my team, creating a game under pressure. Enhanced my teamwork and communication skills. https://robaca.itch.io
- Global Game Jam 2023 (Feb 2023): Collaborated with a team to create a game in less than 48 hours, focusing on functionality, appeal and simplicity.

PUBLICATIONS

- MODELO PREDICTIVO PARA DETERMINAR LAS FIRMEZAS DE LAS MANZANAS, Based on a structural, physicochemical, and nanomechanical study of four varieties of apples.
- CLSM and TIRF images from lignocellulosic materials: garlic skin and agave fibers study. https://jglobal.jst.go.jp/en/detail?JGLOBAL_ID=202102221923636965
- Development of a facile aerogel-based ion-selective electrode using cellulose and carbon nanotubes as transducer materials for potentiometric application. https://doi.org/10.1002/app.53891
- A Comprehensive Review of Silver and Gold Nanoparticles as Effective Antibacterial Agents. https://doi.org/10.3390/ph17091134
- Advancing Microplastic Detection Technology through Digital Image Processing, Fractal Analysis, and Polynomial Approximation Methods. https://doi.org/10.1093/mam/ozae044.195