# Alejandro Rodriguez Gonzalez

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# **EDUCATION**

# Instituto Tecnológico y de Estudios Superiores de Monterrey

Zapopan, Jalisco, MX

Bachelor of Science in Computer Science (GPA: 97/100)

Aug. 2020 - Jun. 2024

Relevant Coursework: Data Structures, Web Development, Data Analytics, Statistics, Agile Development, Software Requirement Analysis, Linear Algebra, Networking

# Major League Hacking, Powered By Meta

New York, NY

Production Engineering Fellow (SRE & DevOps)

May 2022 - Aug. 2022

Curriculum: Linux Services, Databases, Unit Testing, Containers, Continuous Integration, Monitoring, Networking

#### EXPERIENCE

## Undergraduate Research Assistant

Sep. 2021 – Jun. 2022

Instituto Tecnológico y de Estudios Superiores de Monterrey

Zapopan, Jalisco, MX

- Automated data cleaning and text mining to find insights on student dropout at Jalisco public schools
- Researched and implemented Natural Language Processing algorithms
- Documented insights for further analysis, publishing and use by the Government of Jalisco

### Projects

Consequencias: Wheel of Consequences | MongoDB, Express, React, Node, DigitalOcean Jun. 2022 - present

- Developing a scenario creation tool for Centro de Estudios Aplicados in Guadalajara, Jalisco, MX
- Designed system requirements specifications
- Node-based diagrams showing the relationships between causes and effects github.com/ceaplicados/consecuencias (Spanish, under development)

#### Ilikia: Geriatric Assessments | React, Node, Express, MySQL, Heroku

Mar. 2022 - May 2022

- Led a team of 7 people to design and build a full-stack web application to apply Mini-Mental State Examinations for the Club del Abuelo care home in Zapopan, Jalisco, MX
- Developed Express back-end serving a REST API to process and filter exam results
- Developed React component to display questions with Unity3D components, and send the answers to the server github.com/gonzalpi/ilikia

#### Dog and Cat Image Classifier | Python, Keras

Mar. 2022

 $\bullet$  Trained a Convolutional Neural Network to tell whether a picture contains a dog or a cat github.com/gonzalpi/dog-cat-classifier

#### Monopoly Strategist | Python, Numpy

Dec. 2020 - Jan. 2021

 $\bullet \ \, \text{Modeled the probability of landing on any tile with a Markov chain to find the most profitable tiles github.com/gonzalpi/monopoly-strategist$ 

#### Proposal to Increase Renewable Energy Production to 40% in Mexico by 2024 Aug. 2019 – Nov. 2019

- Developed a proposal to increase renewable energy production in Mexico surpassing the 2024 federal goal
- Analyzed data from the International Energy Agency on energy consumption in Mexico to find current trends
- Consulted the 2016 Transition Strategy and the 2015 Energetic Transition Law enacted by the Mexican Congress
- Presented findings in a poster at the 2019 Expo Ingenierías engineering fair hosted by the School of Engineering and Sciences at Instituto Tecnológico y de Estudios Superiores de Monterrey

gonzalpi.com/poster.jpg (Spanish)

## SKILLS

**Programming Languages**: Python, Bash, C/C++, MySQL, JavaScript, HTML/CSS, R, C# (Unity), MATLAB **Web Frameworks**: React, Flask, Node.js, Express.js

Developer Tools: Git, SSH, Linux (Fedora & Ubuntu), VS Code, DigitalOcean Droplets, Heroku, Firebase

Other Libraries: pandas, NumPy, Matplotlib, TensorFlow, NLTK, Gensim, scikit-learn

Human Languages: Spanish (native), English (full proficiency), French (fluent, professional proficiency)