Fernando Berrospi

U.S. Green Card holder

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WORK EXPERIENCE

MS4M   **Aug. 2021 – Aug. 2022**
Software Engineer   *Lima, Peru*
- Collaborated in the overhaul of a facial point detection algorithm to improve the accuracy of a fatigue detection system from 27.91% to 87.10%.
- Determined the performance of a face detection machine learning model using an open-source tool to evaluate the mean Average Precision (mAP).
- Constructed an algorithm to identify the model with the optimal blink and yawn detection results to maximize the precision and sensitivity of the model.

CDC Gold Peru   **Jan. 2019 – July 2019**
Junior Software Developer   *La Libertad, Peru*
- Developed a k-means clustering algorithm to identify haul truck delays in the mining facilities.
- Designed a tracking algorithm to trace routes taken by water tank trucks saving the company over $3000 per month.
- Upgraded haul truck scheduling efficiency by automating the process using an R script reducing the time spent on the scheduling process by 85%.
- Supervised a team to design and implement an innovative irrigation system saving the company over $5000 per month.

EDUCATION

Purdue University   **December 2019**
B.S. in Industrial Engineering   West Lafayette, IN

PROJECTS

Sorgenia Energy Sharing Business Model   **Jan. 2018 – Aug. 2018**
Innovation Consultant   *Milan, Italy*
- Collaborated with a multicultural group of students to create an inventive solution for an Italian energy company.
- Engineered a feasible energy sharing business model for renewable energy using a design thinking approach.
- Developed augmented intercultural proficiencies including leadership, adaptability and communication skills.

Shortest Path Problem   **Aug. 2017 – Dec. 2017**
Optimization Consultant   *West Lafayette, IN*
- Designed greedy heuristic model to simulate vehicles' delivery routes under numerous circumstances.
- Developed an algorithm in R to perform constraint analysis, test different scenarios and map optimal solutions.
- Demonstrated effective planning and management skills to compile the formal report.

LEADERSHIP EXPERIENCE

College Mentors for Kids, Purdue University   **Aug. 2017 – Dec. 2018**
Mentor   *West Lafayette, IN*
- Cultivated relationships with young children to stimulate confidence, personal development and higher education.
- Engaged in various activities aimed at teaching kids about science, cultural diversity and community service.

SKILLS

- **Programming Languages:** Python, C, MATLAB, R, Java, SQL, Visual Basic for Applications (VBA).
- **Tools:** Git, PostgreSQL, Anaconda, TensorFlow, PyTorch, FastAI, Microsoft Power BI, Microsoft Excel, Bootstrap, HTML, CSS.
- **Language Skills:** Spanish (native), English (fluent), French (proficient), Italian (proficient).