

# ANDRES PENA

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## SUMMARY

Full-stack developer leveraging a background in transportation engineering to become a full-stack developer and provide unique perspectives on how websites and software can help companies and clients grow more efficiently. Integral problem-solver and passionate learner with strengths in curiosity, drive to grow, responsibility, and management of multiple priorities.

## TECHNICAL SKILLS

JavaScript ES6+, CSS3, HTML5, Git, Node.js, Express.js, MySQL, MongoDB, React.js, Bootstrap, Figma, Photoshop.

## PROJECTS

**Fitness Tracker** | <https://github.com/aj-pena/Fitness-Tracker.git> | <https://fitness-tracker-apj.herokuapp.com/>

- Summary: Served as the sole author for this application that allows users to track their workouts and progress.
- Tools: Express, NodeJS, NoSQL, Robo 3T, JavaScript, ORM, Bootstrap, Heroku

**Book Search Engine** | <https://github.com/aj-pena/Book-search-engine.git> | <https://googlebooks-ajp.herokuapp.com/>

- Summary: Served as the sole author for this app that allows users to find and save books in a personal collection.
- Tools: Express, NoSQL, Apollo-Server, GraphQL, Google Books API, ReactJS, Heroku, MERN Stack

**Dollars4Scholars** | <https://github.com/giftilicious/scholarship-app.git> | <https://aqueous-ocean-45024.herokuapp.com/>

- Summary: Served as the Front End Co-Designer of this application that allows the user to provide scholarships to students from underserved communities and allows the student to find funds to advance their education.
- Tools: Express, NoSQL, Apollo-Server, GraphQL, Google Books API, ORM, ReactJS, Heroku, MERN Stack

## EXPERIENCE

### **Remote Transportation Consultant**

2020 - 2021

**Movilidad Sostenible Ltda;** Ottawa, ON

Determined the critical bicycle and infrastructure characteristics that enable safe and convenient travel for parents cycling with children, in Bogota, Colombia. •Passionately researched and learned best practices to make cycling policies inclusive of gender and age. •Proposed growth-oriented bicycle improvements based on affordability, safety, age, and accessibility criteria. •Managed multiple priorities to formulate solutions that eliminate traffic fatalities and harassment of parents cycling.

### **Engineering Intern**

2018 - 2019

**Parsons Corporation;** Ottawa, ON

Learned Ontario practices, and wrote technical reports for eight (8) traffic impact studies in Ottawa, Ontario. •Prepared presentation slides for three (3) technical advisory committees on the Ottawa Road Corridor Design Guidelines-Urban Collectors Update to discuss progress and guide work. •Conducted case studies research to inform proposed guidelines.

### **Transportation Specialist Consultant**

2017 - 2018

**Movilidad Sostenible Ltda & Hill Ltda;** Ottawa, ON

Prioritized actions for the cycling policy for Chía, Colombia (~133K inhabitants). •Learned target population needs by facilitating focal groups with citizens and municipal officers. •Evaluated the National Registry of GHG Emissions Reduction (RENARE by its Hispanic Acronym) to identify opportunities for growth. •Tested the features of the web application before release. •Identified frontend improvements, and errors in the queries results. •Used statistical analysis on surveys of cycling preferences (400 respondents) as well as mobility demand trends, land use, weather, local policy, and regulations to understand the area of study. •Wrote an analytical report with recommendations for the growth of cycling infrastructure and educational campaigns.

### **Transportation Specialist**

2014 - 2017

**LCDR Program USAID / USFS;** Bogotá, Colombia

Provided technical assistance to various government bodies at the national and municipal levels to help decouple economic growth from carbon emissions. •Executed the characterization of the transportation monitoring systems in four cities in Colombia. •Adapted to provide assistance to 4 Municipal and 2 National Government bodies by striving to understand the different lenses with which each body approaches the problem-solving of greenhouse gas emissions in the transportation sector. •Co-wrote the mobility chapter of the 2030 Action Plan for the City of Valledupar, which identified (\$300 MUSD) of investments to advance economic growth that is decoupled from greenhouse gas emissions.

## EDUCATION

**Full Stack Web Development Certificate** – University of Toronto, ON | 2021

**STUDIO First Certificate** – Carleton University, ON

**Master of Science in Transportation Engineering** – Universidad de Los Andes, Colombia  
(Recipient of Graduate Research Assistantship Scholarship)

**Bachelor of Science in Civil Engineering** – Universidad de Los Andes, Colombia