SILVIA LÓPEZ Computer Engineer, Pipeline Tools Developer

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Recent UofT Computer Engineering graduate with a strong foundation in computer graphics and imaging technologies (coursework & internship). A self-taught artist passionate about animation, I leverage creative problem-solving and excel in collaborative team environments. I want to provide support in the domain of animation, VFX, and games.

EDUCATION

SEP 2019 - JUN 2025

Computer Engineering, Minor in Artificial Intelligence — University of Toronto

O Awarded: Lester B. Pearson International Scholarship & LINK

TECHNICAL SKILLS

VFX/Graphics: C/C++ (SFML), Python (PyQt, ROS)

Web Dev: HTML, CSS, JavaScript (React, Angular), Django, NPM

Devops: Docker, CI/CD (Jenkins, Bitbucket), AWS, Cloudflare, Git, API Integration (RESTful), SQL, SQLite

PROFESSIONAL EXPERIENCE

FEB 2025 - PRESENT

Airbnb Host (remote) - Casa Giselle, Honduras & LINK

 Administered all aspects of property management remotely, including booking, communication, and coordinating local solutions for guest needs and maintenance. Achieved 'Guest Favorite' status and ranked in the top 10% of homes in the El Progreso area by consistently delivering exceptional guest experiences. Maintained a 100% response rate within one hour, regardless of time zone differences.

JUN 2022 - JUL 2023

Software Engineering Intern - Uhnder Inc. CA

- Architected a custom **3D visualization pipeline** in Python within ROS and Rviz to represent complex simulation data, mirroring workflows common in professional VFX pipelines.
 - Created all **technical documentation**, ensuring clear and detailed guidelines for future users and pipeline developers.
- Developed a behavior-driven testing (BDT) suite, establishing the backend infrastructure for an intuitive interface utilizing the Behave Python library.
- Played a key role in the migration of the CI/CD pipeline from a Mercurial/Jenkins environment to a Git/Bitbucket system.

PROGRAMMING PROJECTS

JUN 2023 - JUN 2024

UofT CodeBuddy VS Code Extension - Capstone Project ⊘LINK

- Built a programming tutor with the goal of helping novice C programmers learn core coding concepts. The tool utilizes the OpenAl API and is available as a VSCode Extension.
- Developed the front end of the user-interface with HTML, CSS, and Javascript and the VS Code Extension API
- Utilized prompt engineering principles that enabled the OpenAI model to reason about user code, plan tutoring steps, and respond to real-time interactions

AUG 2023 - APR 2024

Interactive Sketch Clustering - Research Project @LINK

- Delivered a C++ plugin designed to enhance an existing stroke clustering algorithm, enabling it to process and cluster individual sketch inputs incrementally, rather than requiring an entire drawing upfront.
- This research has direct applications in creating more **artist-friendly 2D drawing tools**, streamlining the creative workflow for digital artists.

VOLUNTEERING

FEB 2025 - PRESENT

Head of Logistics - HER CODE CAMP & LINK

 Organizing a programming workshop for high school students from underserved communities in the GTA, including fundraising, securing sponsors, and gathering donations for food and swag.

MAR 2025

Programming Tutor - CS Academy, University of Toronto *⊗*LINK

- Taught high school students fundamental Python programming concepts and introduced linear algebra in an accessible way for animation research.

August 2023, May - July 2024, August 2025

Team Leader (2024), Student Volunteer (2023, 2025) - SIGGRAPH North America