

# NICO STEPAN

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## EDUCATION

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### McMaster University

B.A.Sc. (Honours), Computer Science

Hamilton, ON

Sep 2018 – Apr 2020

B.Sc. (Honours), Physics

Sep 2014 – Apr 2018

## SKILLS

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**Languages** C/C++ (*3 years*), Python (*3 years*), JavaScript (React, Node)  $\LaTeX$  (*all ~2 years*)  
**Software** Firebase, AWS, A-Frame, WebXR, OpenGL/GLUT

## WORK EXPERIENCE

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### Facebook

Software Engineer Intern

Menlo Park, CA

Jun 2019 – Aug 2019

- Developed an effective, personalized, self-serve auto-diagnosis internal tool for detecting Facebook revenue issues by working with a small team within Ads Infrastructure
- Reduced query latency by  $\sim 90\%$  through implementing multiple backend optimizations such as caching repeated queries, parallelization, and system/sub-system specific filtering using PHP
- Improved user-friendliness and increased the number of users by  $\sim 25\%$  through implementing features for users to view their query history, save and customize queries, and provide additional insights about system specific issues using PHP and React

### Apple

Genius Bar Technician

Toronto, ON

Jul 2017 – Oct 2018

- Diagnosed technical needs and efficiently communicated to deliver a seamless customer experience
- Adapted during rotation of various technical specialties and skill sets while thriving on change as Apple products evolve
- Provided training, mentorship, and feedback for newly hired Apple Technicians

## PROJECTS

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### Placebox

placebox.xyz

A VR-friendly social network for 360° panoramas. Placebox delivers an immersive user experience when wearing a VR headset, and when on web or mobile. Placebox brings images to life so users can become inspired by them and enjoy them vicariously.

### LaTeX Lab

latexlab.xyz

A website that can generate LaTeX documents without ever touching LaTeX code. LaTeX Lab has a powerful and user-friendly drag and drop interface that allows users to generate professional documents containing code blocks, equations, tables, and more.

### Jabbic

A mobile app built with React Native that provides a user with targeted advertising based on their physical facial features and accessories. Using a dataset with over 200,000 images, Jabbic utilizes a custom API built with Google's AutoML to display an advertisement pertaining to the user.

### 3D Modelling System

An OpenGL and C++ project that allows a user to create, save, or load a scene of 3D interactive objects. Using ray-casting, individual objects can be selected and manipulated anywhere on the display. The system also supports object transformations, texture mapping, lighting settings, and other features.

### Gasham

This project displays all sorted gas station prices based on user desired address, city, area, and preferred travel distance to gas station. Built with Python, the Geocoder library is used to transform addresses into geographic coordinates which allows distance to be calculated. The Urllib and re libraries are then used to web-scrape real-time gas station data and append to a JSON file.

## PERSONAL

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**Hackathons** *HackPrinceton, QHacks, DeltaHacks*

**DeltaHacks** *Interview Prep Night Panelist*

**McMaster Students Off Campus Society** *Welcome Week Representative*

**Interests** *Golf, hiking/backpacking, VR, 360° photography*