

Carlos Miguel Sayao

COMPUTER SCIENCE · SOFTWARE ENGINEER

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Education

Portland State University

B.S. IN COMPUTER SCIENCE WITH A MINOR IN PHYSICS

GPA: 3.01

Portland, OR

2014 - 2020

Technical Profile

Programming Python, C/C++, Java, JavaScript, TypeScript, Bash, SQL, PostgreSQL, MIPS/x86, LaTeX

Machine Learning Scikit-learn, Keras, Numpy, Pandas, NLTK, Matplotlib, Seaborn

Web Development HTML, CSS, jQuery, Bootstrap, Node, Express, Flask, React, Ionic Framework, Google Cloud Platform

Platforms and Tools Linux, Windows, Vim, VSCode, PDB, GDB, Git, Android Studio, Agile, Scrum, Jira

Experience

Open Source Mobile City App (<https://github.com/jldle/North-Plains-App>)

WEB DEVELOPER

Open source Android and iOS app to mirror a client city's website.

- Designed pages using Ionic React Framework and Typescript.
- Built rudimentary API calls to fetch JSON and populate pages.

Portland, OR

June 2020 - July 2020

Dual-Pi DJ Visual Assistant (Pi-Visualizer), PSU (gitlab.com/madelyea/team-visualizer)

SOFTWARE ENGINEER

Pi-Vis is part of an art installation to be featured at Burning Man. Written in Python, the multi-threaded program makes extensive use of Socket programming and command line scripting to sync video playback between two Raspberry Pis.

- Wrote communication protocols to be fast and consistent.
- Designed architecture to withstand harsh environments, minimize probability for failure, and provide users with easy interface and deployment.
- Developed redundancy—Pis can be swapped on the fly without disruption to playback.
- Developed reliability—Errors handled by the system during the approx. 12hr run time.

Portland, OR

Sept 2019 - Mar 2020

Lonr (<https://github.com/carsayao/lonr>)

WEB DEVELOPMENT/MACHINE LEARNING

Web-chat app generates Markov models from corpora to simulate conversation with notable comedians.

- Built frontend using Flask, HTML, CSS, Bootstrap for clean, simple look.
- Built backend using Flask-SocketIO to establish low latency two-way communication between client and server.
- Modified Python library, Markovify, to generate a more robust response message.

Portland, OR

Jun 2019 - Aug 2019

Web Development, PSU

STUDENT GRADER

- Courses covered HTML5, CSS, HTTP, JavaScript (ES6), Node, Express, React, and other various libraries, frameworks, and APIs.
- Work was focused on evaluating student assignments and projects.
- Delivered constructive feedback and tips to students struggling with assignments.
- Managed student concerns and inquiries concerning technical and academic issues.

Portland, OR

Sept 2019 - Mar 2020

DSHS of Washington

HOME CARE AID

Vancouver, WA

Jun 2016 - Present

Free Geek

VOLUNTEER

Portland, OR

Sept 2011 - Present

City of Vancouver

LIFEGUARD & CAMP COUNSELOR

Vancouver, WA

Jun 2011 - Sep 2015