# Nathan J. Wakefield

US Citizen

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A passionate computer science undergraduate with a strong foundation in self-driven automation projects using Python. Automotive and 3D Printing hobbyist.

## SKILLS

Python; C++; Automation; Microsoft Excel; Data Visualization; Software Design; Debugging; NumPy; Pandas; MatPlotLib

## WORK EXPERIENCE

**Manager of Marketing and Social Media, DeLillo Chevrolet** **Jan. 2021 – Present**

*Huntington Beach, CA*

- Developed interactive and headless Python tooling to automate manual tasks, drastically optimizing output.
- Performed data analysis from large datasets of customer data using Excel's visualization stack.
- Assisted with maintenance and upkeep of backend price management software.
- Delivered in-depth business marketing initiatives to drive sales and generate leads.

**3D Printing Technician, Self-Employed** **June 2017 – Present**

*Long Beach, CA*

- Facilitated the process of printing and shipping prototypes to professionals around the US.
- Constructed CAD models using TinkerCAD and Fusion 360 and produced them using PLA, ABS, and resin.
- Readily maintained a group of 3D printers, tasks including frequent bed leveling and build plate cleaning.
- Configured open-source tooling to automate internet-driven print jobs and optimize workflow.

## PROJECT EXPERIENCE

- **CSULB SAE Data Acquisitions Lead**
  - Promoted the use of GitHub for the organization of CAD, programming, and datasheets.
  - Refactored existing programs to be used on Arduinos and ESP32s.
  - Interfacing GPS, Gforce, Suspension ride height, and various temperature sensors.
  - Planned and 3D printed housings for all of the data components.
- **Customer Review Request Automation**
  - Automated a manual data entry task, saving upwards of 4 hours weekly.
  - Used Python to parse a CSV of customer data and interface with a webpage using Selenium.
  - Used NumPy for CSV manipulation and data preprocessing.
- **Photography and Videography Library Backup**
  - Automated mass renaming and moving of over 2TB of multimedia files.
  - Dynamically relocated files from a computer to a local NAS.
  - Researched and implemented a duplicate detection algorithm using average per-pixel RGB values.
- **Digital Quadrascopic Lenticular Camera**
  - Designed, modeled, and 3D printed a Quadrascopic Lenticular Camera body.
  - Developed a system in Python that would operate the camera, automatically managing photo processing and I/O operations.
  - Utilized a Raspberry PI and a specialized HAT to control 4 individual cameras simultaneously, alongside system functions.

## EDUCATION

**California State University, Long Beach** **August 2019 – December 2024**

*B.S. Computer Science* *Long Beach, CA*

Relevant Coursework: Databases, Programming Language Principles, Algorithms, Data Structures, Object-Oriented Design, Python, Software Design Principles