

# Chris Nelson

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## Engineering Experience

1-2 years

## Remote Experience

1 year

## Technical Performance

Track: Generalist (Entry-level)

### COMPONENT

### PERFORMANCE LEVELS

#### Back-End Architecture



#### Algorithmic Knowledge



#### Programmatic Problem-Solving



## Technical Experience

### Experience by role

▼ Basic

Internships / personal projects

Back End

Full Stack

Machine Learning

### Experience by technology

▼ Basic

Internships / personal projects

C

C++

SQL

Java

Numpy

OpenCV

Python

JavaScript

Scikit-Learn

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## Background

### Work Experience

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#### Software Engineer at Festo

July 2019 - June 2020

LIVERMORE, CALIFORNIA, UNITED STATES

- Redesigned and built a Python tool to test and calibrate a high accuracy pneumatic device.
- Reduced testing time from 2 hours down to 20 minutes by streamlining the user interface and parallelizing the code.
- Created sub-modules to completely automate certain tests.
- Further developed skills working with people and communicating effectively within a team.

#### Technical Support Specialist at Self Employed

June 2017 - July 2020

- Provided onsite IT help to local clients by migrating old photos & data, updating and debugging software, troubleshooting hardware, and ensuring a better overall user experience.
- Built trust by communicating technical information to clients at their level of understanding.
- Taught programming basics by helping kids build an interactive game using Python.
- Repeatedly commended for being friendly, informative, and helpful.

### Education

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#### B.S. Computer Science & Engineering at Santa Clara University

September 2016 - June 2020

SANTA CLARA, CALIFORNIA, UNITED STATES

- Related Coursework:
- Abstract Data Structures, Advanced Data Structures, Theory of Algorithms, Programming Languages, Software Engineering, Machine Learning, Web Information Management, Operating Systems, Embedded Systems, Computer Architecture, Computer Networks, Discrete Math, Logic Design

## Predictive Text Editor

July 2020

- Built a text editor with autocomplete suggestions as the user types.
- Used Google n-gram's top 10,000 common words to offer continuously updating suggestions.
- Implemented extensive NumPy Library for optimal performance with simple building blocks.
- <https://github.com/Chris300127/TextPredictor>

## Senior Design - Basil Leaf Automation

May 2020

- Created a robot with a multidisciplinary team of Software and Mechanical Engineers.
- Implemented computer vision algorithm (using OpenCV) to detect and find the center of basil leaves in an image with 99% accuracy.
- Developed a communication protocol between an Nvidia Jetson Nano and Raspberry Pi to convert program coordinates to real world points with the goal of autonomously picking and placing leaves on a production line.
- Published a Thesis Paper and presented the project at the SCU Senior Design Conference.
- [https://m.youtube.com/watch?v=-mwG\\_F\\_w4d0](https://m.youtube.com/watch?v=-mwG_F_w4d0)

## Peer to Peer File Sync CLI

March 2019

- Built a peer to peer file syncing command line application to synced specific files between a list of peers using a TCP connection and socket programming concepts in C.
- Collaborated with a team designing, diagraming, and implementing the project from the ground up.
- Improved team communication and debugging skills after many late nights fixing bugs.
- [https://github.com/Chris300127/P2P\\_Networks\\_Project](https://github.com/Chris300127/P2P_Networks_Project)