# Peter C. Gish

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## **Summary**

Multidisciplinary, driven Machine Learning Engineer with a passion for leveraging large data to create predictive models and provide analytical insights. Adept at working independently and collaborating with teams across multiple functions to reach a common goal. Excels at solving complex problem solving through innovation and resourcefulness. Pursuing a Bachelor's Degree in Computer Science and holds a certificate in Data Analytics and Associates Degree in Computer Science.

#### **Education**

Bachelor's Degree in Computer Science: University of San Francisco, San Francisco, CAIn ProgressAssociates Degree in Computer Science: Foothill College, Los Altos Hills, CA2020Data Analytics Certificate: UC Berkeley, Berkeley, CA2020Undergraduate Coursework: University of Denver, Denver, CO2016 - 2018

#### **Technical Skills**

*Programming Languages*: Python, C++, Java, C, Linux, JSON, JavaScript, HTML, CSS *Software Concepts*:

- ML systems implemented through TensorFlow, SciKit-Learn, and Keras
- Data Visualization using Matplotlib, Plotly and Tableau
- GUI development using PyQt
- Web scraping using Python, HTML, and JavaScript
- Web development using Python, Javascript, HTML, and CSS employing Django and Vue.js

## Databases

- MySQL, PostgreSQL, and SQLAlchemy
- MongoDB and PyMongo
- ETL using Python and Pandas

#### **Product Development**

- Software testing & debugging
- Rapid prototyping
- Version control using Git and Gitlab
- Autonomous systems
- Mechanical and electrical engineering
- Task Management using Jira

### **Work Experience**

Software Engineering Intern NVIDIA Santa Clara, CA Summer 2018

- Designed a software test to ensure proper camera placement in NVIDIA's DriveIX program by comparing the user's facial location to a predefined headbox.
- Improved accuracy of gaze tracking network by 20% as a result of refining the data collection method to utilize known ground truth gaze location values within the car.
- Chosen from team of 20 to lead the team's effort to enable car actuations from the Drive system by interfacing with the vehicle's CAN systems because of my ability to quickly become proficient in an unfamiliar space through resourcefulness and dedication.

Developer Denver, CO

University of Denver

Autumn 2016 - Spring 2017

• Retrofitted an iRobot ATRV Jr. to be used as an assistive robot for visually impaired individuals navigating indoors.

• Equipped the rover with modern hardware; installed two Raspberry Pis for control and video processing, created a mechanical shut-off circuit, and fabbed external camera/LIDAR mounts along with internal scaffolding.

Engineering Intern

San Francisco, CA

Hello, Inc.

Summer 2016

- Improved manufacturing process by engineering a vacuum system that ensured reliable and repeatable handling of the product while adhesive labels were applied.
- Designed CAD enclosures for prototyping new product ideas such as a baby monitor that would gauge a child's sleep quality using SolidWorks and a Carbon3D printer.
- Built Python scripts to automate Bluetooth connection and communication verification between the two
  components that made up the product. This significantly improved validation and enabled more efficient
  manufacturing.

Co-Founder Atherton, CA Gishwin Drones LLC 2014 - 2019

- Founded a drone business around an autonomous drone OS and navigation system leveraging existing broadband network infrastructure.
- Achieved live video streaming and mid-flight waypoint updating from a ground unit.

## **Projects**

Analysis of Gun Violence in the US | https://github.com/jennitian/gun-violence

- Utilized a public dataset of gun violence in the United States from 2013-2018 to identify trends among suspects. Compared and contrasted the performance between logistic regression models, SVMs, random forests, and basic neural networks.
- Developed machine learning models in Python utilizing Pandas, SciKit-Learn, and TensorFlow. The models were used to predict the gun acquisition method, the suspect outcome, and incident severity.

Fantasy Creator Application | <a href="https://github.com/peterg7/Fantasy">https://github.com/peterg7/Fantasy</a> Creator

- Designed, developed, and deployed a PyQt5 desktop application for fiction writers to build their worlds. Includes a family tree, timeline, map builder, and character development page.
- All written in pure Python with the aid of a small document-based database library TinyDB and numpy.
- Deployed using PyInstaller and has been tested on MacOS >= 10.13.