

Parker Williamson

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EDUCATION AND CERTIFICATIONS

California Polytechnic State University, San Luis Obispo Graduated December 2016
Bachelor of Science in Mechanical Engineering, with a concentration in **Mechatronics**
Springboard Data Science Career Track Jan 2018 – June 2018
Machine Learning Course from Stanford University on Coursera Summer 2016

WORK EXPERIENCE

- **Controls Engineer - Industrial Automation Group (Ladder Logic)** **April 2017 – Jan 2018**
 - Added new production lines at factories by implementing multiple PLC and HMI projects
 - Served as company's emergency service contact for multiple weeks and consistently solved client's issues
- **Controls Engineering Intern - Industrial Automation Group (Ladder Logic)** **Jan 2017 – April 2017**
 - Performed service calls and restored production lines
 - Quoted and implemented a job worth more than \$10,000
 - Converted from an intern to a full-time position after 3 month of successful projects and happy customers
- **Greenpoint Technologies - Interiors Intern** **Summer 2014**
 - Compiled standards and edited the Greenpoint Engineering Design Handbook
 - Classified and corrected models of fit, form and function errors
- **Machinist Intern – Atomic Fabrication** **Summer 2015**
 - Responsible for cutting, bending, polishing, shearing, drilling, punching, and treating metal

PROJECT EXPERIENCE

- **Personality Classification from text (Python)** **Mar 2018 – May 2018**
 - Collected more than 10,000 comments from Reddit using the PRAW API
 - Used a bag of words approach to extract features from text
 - ~70% accuracy classifying each of a commenter's personality traits
- **Clothing Categorization (Python)** **Jan 2018 – Mar 2018**
 - Classified 10 clothing groups using multiple ML models on a dataset of 70,000 images
 - 92% accuracy using CNN, with categories such as T-shirt and Shirt (Keras with a TensorFlow backend)
- **Motor Controller (Assembly)** **Fall 2015**
 - Created a motor controller using a Motorola 68HC12 microcontroller
- **3D Scanner (Python)** **Summer 2016 – Summer 2017**
 - Designed and built a cheap 3D scanner using line laser, webcam and stepper motor
 - Programmed arduino controlled Inputs/Outputs and laptop-based image processing
- **Electronic Car, Mark I & II (C++ & Python)** **Winter and Spring 2016**
 - Built an electronic car from base components using an ATmega1281 8-bit microcontroller to control motor, servo, IR sensor, MPU-6050, encoder and Bluetooth devices (mark I)
 - Designed, wired and built the car in collaboration with the rest of my team
 - Used image processing to recognize and react to a basic stop light using OpenCV on a Raspberry Pi (mark II)

SKILLS

- **Programming: 5 years** - Python, C++, Javascript, Matlab, Assembly, ladder logic, and Java
- **Data Science/Machine Learning: 2 years** - Image classification, Sentiment analysis, Neural Nets, Random forest, Support Vector Machines, Linear/Logistic Regression
- **Controls/Integration: 3 years** - I2C, SQL, motors, servos, IR sensor, MPU-6050, encoder and Bluetooth, OpenCV