

# JOHN FANTELL

## Software Engineer

🌐 New York Metropolitan Area

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johnfantell.com

## Skills / Tools

- Python (NumPy, Pandas, Matplotlib, plotly, Scikit-Learn)
- C++ (Qt), JavaScript, Swift (iOS), MATLAB, Java, HTML/CSS
- Machine Learning, TensorFlow, Convolutional Neural Networks
- Image Processing, OpenCV
- Applied Statistics, Regression Analysis
- Data Visualization
- APIs, Django, Flask, Node.js, MySQL, MongoDB
- Docker, Git, AWS
- CUDA, PCL, OpenGL
- Business Acumen, Active Learning, Communication
- Leadership, Empathy

## Honors

- GDMS Mission of Excellence Award (2020)
- National Science Foundation I-CORPS Entrepreneurial Lead (2020)
- Rensselaer Business Model Competition 2nd Place (2019)
- Rensselaer Founders Award of Excellence (2018)

## Hobbies / Interests

- Blockchain/Cryptocurrency, Deep Learning, Computer Vision, Augmented Reality
- Writing Medium articles
- Skiing, Scuba Diving, Martial Arts

## Work Experience

### Software Engineer

General Dynamics Mission Systems, Florham Park, NJ

August 2020 - Present

- Developed new features for existing machine learning & image processing pipeline to support project needs using Qt, C++, Python, and OpenCV.
- Led and executed systems engineering test plan for various lab equipment; hosted regular meetings to convey updates to stakeholders.
- Created software pipeline to automatically preprocess, model, and plot time series data from various lab equipment using Python, Pandas, NumPy, plotly, and MATLAB; results used by senior engineers to draw conclusions about experiments.
- Acted as a machine learning consultant on an R&D project; provided support on data acquisition, modeling, analysis, and tools/frameworks.

### Software Engineering Intern

General Dynamics Mission Systems, Florham Park, NJ

June 2019 – August 2019

- Developed high performing feature engineering and machine learning pipeline to train and evaluate multiple image classification-based models in parallel using Python, OpenCV, TensorFlow, and Scikit-Learn.

### Data Science Intern

Johnson & Johnson, Bridgewater, NJ

July 2018 – August 2018

- Designed a Tableau dashboard to increase IT support ticket workflow visibility; renewed for second phase.
- Developed Natural Language Processing pipeline to efficiently categorize 10,000 product complaints; used by senior data analysts to build drug diversion model.

### Software Engineering Intern

Appatura, Ridgefield Park, NJ

January 2018 – February 2018

- Developed application to detect unauthorized modifications to PDF documents using Angular, Django and Node.js; highly received by stakeholders.

## Education

### M.S. Information Technology

Rensselaer Polytechnic Institute, Troy, NY

January 2019 – May 2020 | GPA: 4.00

- Concentration in Machine Learning and Data Analytics

### B.S. Computer Science / B.S. Information Technology & Web Science

Rensselaer Polytechnic Institute, Troy, NY

August 2015 – May 2019 | GPA: 3.63

- Concentration in Computer Vision and Artificial Intelligence

## Projects *(See more at johnfantell.com)*

### Algorithmic Trading Bot with Machine Learning

July 2020 – Present

- Developing machine learning models to optimize personal investment portfolio and execute live trades using the zipline trading platform, TensorFlow, CUDA, Docker, AWS, and MySQL.

### Reactive Projective Mapping

September 2019 – December 2019 | On GitHub

- Co-developed projection mapping system that scans real-world objects in real-time using a stereoscopic camera and re-projects a user selected texture onto the objects; built using OpenGL, PCL, and C++.