ANDREW **CHAN**

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Artificial intelligence/machine learning engineer with over 5 years of experience in data science, software engineering, and digital transformation. Developed state-of-the art data analytics and machine learning solutions to solve complex customer business problems on multi-billion-dollar projects.

EXPERIENCE

SEPTEMBER 2020 – PRESENT

PRINCIPAL ARTIFICIAL INTELLIGENCE SOFTWARE ENGINEER, NORTHROP GRUMMAN

- Product Manager — Invented a graph data science platform using Node.js and Neo4j to identify and reduce over 1K engineering model defects for multi-billion dollar projects. Translated customer business needs into data science tasks for 5 software engineers, defended model results and metrics at customer meetings, secured funding for project.

OCTOBER 2019 - OCTOBER 2020

ARTIFICIAL INTELLIGENCE SOFTWARE ENGINEER, NORTHROP GRUMMAN

- Computer Vision — Created a machine learning image classification algorithm for 4 terabytes of image data. Used Deep Learning for scratch training of LeNet architectures. Applied state-of-the-art models such as VGG, ResNet, and Inception networks.
- Natural Language Processing — Created a machine learning sentiment analysis system to analyze large scale text data. Used stop word reduction, data balancing, regex replacement for data preprocessing. Developed Scikit-learn machine learning algorithm to identify human errors.

OCTOBER 2016 - OCTOBER 2019

SYSTEMS ENGINEER, NORTHROP GRUMMAN

- Anomaly Detection — Created a machine learning anomaly detection system to conduct IOT times-series analysis for embedded sensor data. Collected sensor data via Python and C++, wrote bash scripts, and used Scikit-learn for Naïve Bayes, SVM, K-means anomaly detection.
- Data Automation— Wrote plugins in Java and macros in JavaScript to connect legacy engineering tools to excel, reducing 100+ hours of manual data entry.
- Data Extraction—Wrote Java based templating scripts to automatically generate documents from engineering models.

EDUCATION

2018-PRESENT

M.S., COMPUTER SCIENCE, JOHNS HOPKINS UNIVERSITY

Data Science Track

- Zindi Passion Fruit Disease Object Detection Global Competition -- Created object detection algorithm via YOLO to create bounding boxes for fruit disease in images, achieved 70 percentile on global leaderboard.
- Created statistical analysis of COVID-19 transmission rates to prioritize counties for vaccination. Used R to analyze data from published technical articles. Performed multivariable regression and central limit theorem analysis to find statistically significant counties.

2012-2016

B.S., ELECTRICAL ENGINEERING, UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA)

Computer Science Technical Breadth

SKILLS

- Machine Learning – TensorFlow, Keras, Scikit-learn
- Object Oriented Programming – Python, Java, C++
- Databases – MongoDB, SQL, Neo4j