# ABULITIBU TUGULUKE

Denver, CO

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## CAREER HIGHLIGHTS

- 5+ years of data science/software experience and 2 graduate mathematics degrees
- Solid experience with machine learning to include NLP, reinforcement learning, recommendation engines
- Proven ability to work cross-functionally with Finance, Project Management, Engineering & Executives
- Proven ability to communicate across audiences and leverage effective data storytelling
- Received patents for image recognition & reinforcement learning

# **TECHNICAL PROFICIENCIES**

- ✓ Data Visualization tools
- ✓ MS Access | SOL
- ✓ Linux | Unix
- ✓ Atlassian Suite

- ✓ Python | R | C | C++ | Java
- ✓ Google TensorFlow | AWS Sagemaker
- ✓ Apache Hadoop | Apache Hive | Spark
- ✓ Google BigQuery | AWS Athena
- ✓ Docker | Kubernetes
- ✓ Github | Gitlab | GCP
- ✓ Lambda | Codebuild
- ✓ Cloud Formation | S3

## **EDUCATION**

| <b>Professional Master of Science, Computer Science;</b> University of Colorado Boulder | Current |
|---|---------|
| Certificate - Natural Language Processing with Deep Learning; Stanford                  | 2020    |
| Master of Science, Applied Mathematics; University of Colorado Denver                   | 2017    |
| Master of Science, Industrial Mathematics; New Mexico Tech                              | 2012    |
| Bachelor of Science, Informatics and Computer Science; Xinjiang University              | 2009    |

## PROFESSONAL EXPERIENCE

DHI Group Inc., Greenwood Village, CO

June 2021 - Present

# Senior Machine Learning Engineer

## **Key Responsibilities:**

- Design, Develop, and apply machine learning models into product data acquisition team's software pipeline.
- Support and maintain build /deployment application life cycles through CI/CD.
- Mentor junior level data scientist and developers. through bi-weekly learning seminars.

**Pearson Inc.,** Centennial, CO

June 2019 - Present

#### **Data Scientist**

#### **Key Responsibilities:**

- As part of the AI Products & Solutions Advanced Computing lab, developed image recognition software to assist with solving hand-written Calculus problems
- Leveraged reinforcement learning and content recommendation to provide relevant problems to students
- Utilized natural language processing (seq2seq) for converting handwritten math equations to LaTeX

## **Key Achievements:**

- Contributed to one of a kind AI-powered education consumer application
- As a result of cross-functional work, selected the most optimal model for image recognition
- Awarded with patents for AI-generated hand-written mathematical expressions and content recommendation

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#### Renewable Energy Systems Ltd., Broomfield, CO

November 2017 - June 2019

## **Construction Data Analyst**

#### **Key Responsibilities:**

- Built a pipeline for data from wind and solar sites to be included in a new database
- Worked with internal stakeholders across IT, project management, field engineering and finance to scope and build visualization dashboards for company-wide KPIs
- Built predictive models using Linear Regression and Time-Series Forecasting to support the bidding process
- Conducted experiments using individual group comparison to realize cost savings

#### **Key Achievements:**

- Facilitated creation of a new database and built brand new analytic capabilities
- Saved > \$200K as a result of smart experimental design relating to wind turbine and solar panel installation
- Provided mentoring to other team members on applied statistics concepts
- Summarized KPIs into effective storytelling for monthly presentations to the CEO

aWhere, Broomfield, CO

January 2017 – November 2017

#### Mathematician | Data Analyst | Applied Statistician

# **Key Responsibilities:**

- Key member of the Research & Development team responsible for agricultural statistical models to predict yield and other variables of interest across multiple countries
- Combined internal and external data from NASA/SPAM weather portal and other web resources to be used in Logistic Regression, Google Tensorflow and Support Vector Machine predictive models
- Provided feedback to IT on efficient GPU resource allocation

#### **Key Achievements:**

- Using 10GB of weather humidity data, improved the prediction accuracy of leaf fungus model to 99%, model run time decreased from 4 hour to 20 minutes
- Principle analyst on \$100K hybrid rice project analyzing 15 years worth of global precipitation data
- Essential contributor to establishing the price-point of aWhere's Commodity API Software at \$5K per license
- Conducted weekly client-facing presentations on aWhere's product offering