

# Keanu Nichols

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## EDUCATION

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### The University of the West Indies

*Bachelor of Science in Computer Science Special*

Trinidad

*Aug. 2017 – Present*

## PUBLICATIONS

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- Hosein P., Rahaman I., **Nichols K.**, Maharaj K., Recommendations for Long-Term Profit Optimization, 1st Workshop on the Impact of Recommender Systems - Denmark (*ACM RecSys 2019 - Best Paper*)

## EXPERIENCE

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### Machine Learning Undergraduate Researcher

*TTLAB*

April 2018 – Present

*Trinidad*

- Developed a recommender system using Multinomial Naive Bayes that showcased a profit/probabilistic trade-off for its recommendations.
- Working on a National Geographic grant using UAV's to monitor crop health and weed detection

### Deep Learning Research Intern

*NASA Ames Research Center*

June - August 2019

*Mountain View, CA*

- Developed a binary classification model using Convolutional Neural Networks (CNN) trained on a dataset of tsunami affected buildings.
- Developed an image segmentation model to classify Landsat images of size 7601x7761 as having either clouds or not using Convolutional Neural Networks using Tensorflow/Keras Dataset API.

### Software Engineer

*Community Health Analytics Open Source Software*

May - August 2018

*Remote*

- Used Natural Language Toolkit (NLTK) to conduct sentiment analysis by retrieving emails using Perceval from Open Source organization's mailing lists to determine differing levels of toxic emails.
- Designed and implemented a SQL database to store the emails for automatic retrieval for comparison.

## RESEARCH GRANTS

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- **National Geographic/Microsoft (AI For Earth):** Farming Adaptation Artificial Intelligence for Resilience (FAAIR), 2021, **\$60,800 USD**

## TECHNICAL SKILLS

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**Languages:** Java, Python, C/C++, SQL, JavaScript, HTML/CSS

**Developer Tools:** Git, Vim, LaTeX

## REFERENCES

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- Research Mentor: **Patrick Hosein**, Professor Computer Science, The University of the West Indies.
  - [patrick.hosein@sta.uwi.edu](mailto:patrick.hosein@sta.uwi.edu)
- Supervisor: **Brian Coltin**, Computer Scientist, NASA Ames Research Center
  - [brian.coltin@nasa.gov](mailto:brian.coltin@nasa.gov)
- Supervisor: **Michael Furlong**, Computer Scientist, NASA Ames Research Center
  - [padraig.m.furlong@nasa.gov](mailto:padraig.m.furlong@nasa.gov)