Stefan Hosein

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Education

- **University of Cambridge** — **Cambridge, UK**
  MPhil Computer Science (NLP and Deep Learning), ***Distinction*** — *2016–2017*
  Advanced Topics in NLP, Principles of Data Science, Machine Learning for NLP, Machine Learning Algorithms for Data Mining
- **The University of the West Indies (UWI), St. Augustine** — **Trinidad and Tobago**
  B.Sc Computer Science, ***First Class Honors*** — *2011–2014*
  Graduated Top of Class and Faculty
  Graduating GPA: 4.26/4.3

Publications and Workshops

- **Hosein S.**, Hosein P., Load Forecasting using Deep Neural Networks, *IEEE Innovative Smart Grid Technologies - North America (IEEE ISGT 2017)*
- **Hosein S.**, Hosein P., Improving Power Generation Efficiency using Deep Neural Networks, *33rd International Conference on Machine Learning (ICML 2016) - Machine Learning in Social Good Applications*
- **Hosein S.**, Hosein P., Web Application for Power Grid Fault Management, *IEEE 6th International Conference on Intelligent and Advanced Systems (ICIAS 2016)*
- Basak A., Mengshoel O., **Hosein S.**, Martin R. Scalable Causal Learning for Predicting Adverse Events in Smart Buildings, *Thirtieth AAAI Conference on Artificial Intelligence (AAAI-16) - Artificial Intelligence for Smart Grids and Smart Buildings*
- Basak A., Mengshoel O., **Hosein S.**, Martin R., Jayakumaran J., Morga M., Aghav I. Identifying Contributing Factors of Occupant Thermal Discomfort in a Smart Building, *Thirtieth AAAI Conference on Artificial Intelligence (AAAI-16) - Artificial Intelligence for Smart Grids and Smart Buildings*
- Hosein P.,**Hosein S**., Bahadoorsingh S. Power Grid Fault Detection using an AMR Network. *IEEE Innovative Smart Grid Technologies - Asia (ISGT-Asia 2015)*

Technical Reports

- Martin R., Matthews B., Das S., Janakiraman V., Oza N., Srivastava., **Hosein S**. Adverse Condition and Critical Event Prediction Toolbox (ACCEPT). *NASA Open Source*, May 2015.

Industry Experience

- **Google** — **London**
  Machine Learning Cloud Engineer — *June 2018 – Present*
  - TBD
- **EF Education First** — **London**
  Machine Learning Engineer — *September 2017 – May 2018*
  - Develop machine learning model to determine if students tried to write a sentence; SVM Logistic Regression, Neural Network
  - Create API to analyze student responses and return possible capitalization, punctuation and spelling errors; Python

Research Experience

- **Trinidad and Tobago National Information Centre (TTNIC)** **Trinidad**
  Machine Learning Researcher *September 2015 – July 2016*
  - Designed deep learning algorithms which were compared to traditional methods for electrical load forecasting
  - Improved the previous state-of-the-art method by 3% accuracy.
- **The University of the West Indies, St. Augustine** **Trinidad**
  Bioinformatics Researcher *Janurary 2016 – July 2016*
  - Defined the regions of the human genome that have not been observed to harbor structural variation.
  - Analyzing their characteristics to gain an understanding of which biological processes are present in these regions.
- **National Aeronautics and Space Administration (NASA)** **Silicon Valley**
  Machine Learning Research Intern *Summer 2015*
  - Developed a novel method of identifying causal features in datasets using autoregression and a Bayesian network.
  - Decreased the false alarm rate and missed detection rate of the state-of-the-art by 10% and 20% respectively.
- **Trinidad and Tobago National Information Centre (TTNIC)** **Trinidad**
  Machine Learning Researcher *February 2015 – May 2015*
  - Designed a probabilistic method to detect failed electrical grid components of a small island state.
  - Created an open source web application to complement this work using Python, Javascript and MySQl. We detected the correct failed component with an accuracy of 95% within 4 minutes.
- **National Aeronautics and Space Administration (NASA)** **Silicon Valley**
  Machine Learning Research Intern *September 2014 – December 2014*
  - Developed and implemented a RANSAC algorithm into NASA's open source machine learning toolbox called ACCEPT (Adverse Condition and Critical Event Prediction Toolbox).
  - Predicted alarms in NASA's Sustainable Base 1 minute in advance with a missed detection rate of 0%.
- **The University of the West Indies, St. Augustine** **Trinidad**
  Web Development Research Assistant *Summer 2014*
  - Designed, developed, and tested a web-based application - along with its data - which provided an array of features for postgraduate students, their supervisors, Heads of Departments, the Dean and Deputy Dean of Faculty of Science and Technology.
  - Wrote up the documentation for the whole system and all code.

Fellowships and Awards

- **Gates Cambridge Scholarship**
  For intellectually outstanding postgraduate students. Acceptance Rate 1.1% *2017*
- **NASA Software Initial Awards**
  Contributed to the development of scientific software for release by NASA *2016*
- **NASA Fellowship**
  Top STEM students from Trinidad for research at NASA. Apx 40 students *2014 and 2015*
- **Faculty Prize**
  Top graduate from the Faculty of Science and Technology. Apx 600 students *2014*
- **The Fujitsu Transaction Solution Limited Prize**
  Best Year III (Final Year) performance in Computer Science. Apx 70 students *2014*
- **Atlantic Co. of Trinidad and Tobago Prize**
  Most outstanding graduate in Computer Science. Apx 70 students *2014*
- **Dr.Margaret Bernard Medullan Award**
  Graduate in Computer Science with the highest GPA. Apx 70 students *2014*
- **Faculty Honors**
  Graduating with first class honors *2014*

- **Dean's List Scholar**
  Students whose GPA is above 3.8 *2011 – 2014*
- **The Tucker Energy Services Holdings Ltd. Prize**
  Best Year II performance in Computer Science. Apx 70 students *2013*

Relevant Skills

- **Programming:** Python, Java, MATLAB, JavaScript, C, Prolog, SQL, R, PHP
- **Tools:** Visual Studio, Eclipse, Latex, MySQL, SQLlite, Eclipse, XCode