Clyde James Felix

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EDUCATION

University of Hawai'i at Mānoa **Honolulu, HI**
Bachelor of Science in Electrical Engineering *May 2020*

ACADEMIC PROJECTS

Big Data Lab, Hawai'i *Jan 2020 – Present*
Advisor: Dr. Narayana P. Santhanam

- Investigating Deep Learning fundamentals through linear algebra, probability/statistics, and Python programming.
- Applied Deep Learning knowledge by utilizing Keras and the Anaconda platform.

Tokyo University of Agriculture & Technology, Japan *Jun 2019 - Jul 2019*
Advisor: Dr. Toshihisa Tanaka

- Researched on Brain-Computer Interface binary classification model using different types of Motor Imagery settings using Matlab.
- The model used a Common Spatial Pattern filter and Linear Discriminant Analysis method.

Smart Campus Energy Lab, Hawai'i *Jan 2018 – Dec 2018*
Advisor: Dr. Anthony Kuh

- Designed and developed accurate and reliable weather sensor modules for weather data aggregation.
- Constructed the circuit using EAGLE PCB and C++ to operate tasks such as weather data collection and wireless data transmission into a web server.

EXPERIENCE

UH Mānoa Department of Electrical Engineering **Honolulu, Hawai'i**
Undergraduate Teaching Assistant *January 2020 - Present*

- Teaching Assistant for EE 491D, Linear Algebra & Machine Learning.
- Teach/lead a general Electrical Engineering laboratory section.

UH Mānoa Single Volume Scatter Camera **Honolulu, Hawai'i**
Research Assistant *May 2019 - Present*

- Research on a multipurpose elementary particle detector, aiming to detect not only neutrinos but also fast/thermal neutrons.
- Experimental analysis is performed using ROOT(C++) and Python.

UH Mānoa Department of Mathematics **Honolulu, Hawai'i**
Research Assistant *June 2019 - August 2019*

- Researched on mathematical conjectures of lower bounds of automatic complexity, the shattering of VC-dimensions, and Fibonacci/Tribonacci sequences.
- Utilized Python programming to test concepts using large numbers.

EXTRACURRICULAR ACTIVITIES

- IEEE Student Hawai'i Branch
- Engineer's Council at University of Hawai'i
- Hawai'i Annual Code Challenge 2019 Hackathon
- Mind Innovation and Design 2019 competition

PUBLICATIONS

- R. Islam, C. Felix, T. Tanaka. *Enhancement and Detection of Event-Related Desynchronization in EEG Signals based on Action Observations*. Submitted for ICASSP 2020.
- B.K. Hanssen, C. Felix, S.Y. Kim, E. Lamb, and D. Takahashi (2020). *Vapnik-Chervonenkis-dimensions of non-deterministic finite Automata for words of equal length*. ISAIM 2020. <https://arxiv.org/pdf/2001.02309v1.pdf>
- B.K. Hanssen, C. Felix, S.Y. Kim, E. Lamb, and D. Takahashi. *Automatic Complexity of Fibonacci and Tribonacci words.* Unpublished.

TECHNICAL STRENGTHS

Linux/Unix, Git/Github, Python(Keras/TensorFlow, Jupyter, Anaconda), Matlab(Simulink), C/C++, PCB CAD(EAGLE, Altium), HTML/CSS, LaTeX

AWARDS AND ACHIEVEMENTS

- Dean's list, 2016
- Hawai'i B Plus Scholarship, 2016
- Fred and Annie Chan Scholarship Fund for Electrical Engineering, 2018
- Ronald N. S. Ho and Ann T. Ho Scholarship Endowment in Electrical Engineering, 2019

RESEARCH INTERESTS

Signal & Image processing, Computer Vision, Data science, Machine learning, Neural networks.