Clyde James Felix

Contact Information

PHONE:	(808) 546-9976
E-MAIL:	felixclyde@gmail.com
LINKEDIN:	linkedin.com/in/felixclyde
GITHUB	github.com/cjfelixx
WEBPAGE	cjfelixx.github.io

Education

AUG 2020 - EXPECTED: MAY 2021	**University of Hawaii at Manoa, Hawaii** *M.S. in Electrical Engineering* Track: Systems & Data Science Advisor: Il Yong Chun, Ph.D. Thesis: Iterative Neural Network for Image Reconstruction on Magnetic Resonance Imaging (MRI)
AUG 2016 - MAY 2020	**University of Hawaii at Manoa, Hawaii** *B.S. in Electrical Engineering,*

Research Experiences

AUG 2020 - PRESENT	**Graduate Research Assistant** *University of Hawaii Department of Electrical Engineering* • Perform Graduate level research in medical imaging & biological image computing using Machine Learning and AI. • Utilized Pytorch to develop an Iterative Neural Network for MRI Image Reconstruction. • Mentor undergraduate students and support other related research.
MAY 2019 - JULY 2020	**Undergraduate Research Assistant** *University of Hawaii Department of Physics & Astronomy* • Conducted experiments and data collections using radioactive sources to study the development of efficient Neutron detectors. • Provided data analysis on radioactive particles detection.
JUN 2019 - AUG 2019	**Undergraduate Research Assistant** *University of Hawaii Department of Mathematics* • Collaborated with undergraduate students on Automatic Complexities, VC-dimensions, and the Finite State Machines on Fibonacci/Tribonacci sequences.
JUL 2019 - AUG 2019	**Exchange Student Researcher** *Tokyo University of Agriculture & Technology* • Developed a Brain-Computer Interface Machine Learning model in MATLAB that classifies Motor Imagery tasks. • Successfully determined a better Motor Imagery setting that will benefit stroke rehabilitation studies.

Work Experiences

Mar 2020 - May 2020	**Software Engineering Intern** *Alohapay Inc.*
	• Quality Assurance (QA) tester, including the development of react-native for Android/iOS devices, NodeJS backend applications, and Python applications. • Integrated Python test scripts with Selenium that boosts debugging productivity. • Composed and organized documentation on testing reports and user manual on company procedures.

Teaching Experiences

Teaching Assisstantship

Spring 2021	EE 323: Microelectronic Circuits I
Fall 2020	EE 415: Digital Signal Processing
Spring 2020	EE 345: Linear Algebra & Machine Learning

Leadership & Extracurricular Activities

Jan 2019 - May 2020	**IEEE Student Hawai'i Branch** Webmaster
Aug 2018 - Jan 2019	**Engineer's Council at the University of Hawai'i (ECUH)** VP of Information Technology
2019 - 2020 2020 - 2021,	**Medical Innovation and Design (MIND) competition**
2019 - 2020	**Hawai'i Annual Code Challenge (HACC) Hackathon**

Publications

- B.K. Hanssen, **C. Felix**, S.Y. Kim, E. Lamb, and D. Takahashi (2020). VC-dimensions of nondeterministic finite automata for words of equal length. *The International Symposium on Artificial Intelligence and Mathematics* (ISAIM). <https://arxiv.org/pdf/2001.02309v1.pdf>

- R. Islam, **C. Felix**, T. Tanaka. Enhancement and Detection of Event-Related Desynchronization in EEG Signals based on Action Observations (Unpublished)

Notable Projects

Jun 2020 - Present	**Applying Reinforcement Learning on Asymmetric Strategic games** Advisor: *Dr. Narayana Prasad Santhanam* • Collaborated with students to develop a game *Goats & Tigers* using Python. • Applied the Reinforcement Learning algorithm to study computer decisions.
Jan 2020 - May 2020	**Investigation of Machine Learning algorithms using MNIST and CIFAR-10 datasets** Advisor: *Dr. Narayana Prasad Santhanam* • Investigated Neural Network fundamentals through linear algebra, Probability/statistics, and Python programming. • Understand Machine learning algorithms using Keras, Tensorflow and Sklearn libraries on MNIST and CIFAR10 datasets.
Jul 2019 - Aug 2019	**Enhancement and Detection of Event-Related Desynchro-nization in EEG Signals based on Action Observations** Advisor: *Dr. Toshihasa Tanaka* • Constructed a MATLAB code of a Brain-Computer Interface Machine Learning model to classify Motor Imagery tasks. • Successfully determined a better Motor Imagery setting that will benefit stroke rehabilitation studies. Co-wrote a publication with professors for the ICASSP conference.
Jul 2018 - Aug 2018	**Smart Campus Energy Lab (SCEL): Weather sensor device** Advisor: *Dr. Anthony Kuh* • Engineered a cost-effective weather sensor device using PCB CAD and C++. • Successfully deployed a weather device that sends data to a computer server.

Achievements

2016, 2019, 2020	**Dean's list**

Technical Skills

Software	Linux, Unix, Java, Python, Matlab, Java, C/C++, HTML/CSS, LaTeX, Git

Personal Interests

Data Science, Signal & Image Processing, Computer Vision, Medical Imaging, Scientific Computing, Computer Graphics & Visualization