MARLAN MCINNES-TAYLOR

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OBJECTIVE

Masters student in Computer Science with a focus on biologically inspired neural network based machine learning. Seeking full-time research engineering and machine learning engineering roles.

EDUCATION

M.S. Computer Science, The University of Texas at Austin   2021 - present

- Minor: Neuroscience

B.S. Computer Science, Florida State University   2016 - 2021

- Magna Cum Laude
- With Honors
- Minor: Physics

B.S. Applied & Computational Mathematics, Florida State University   2016 - 2021

- Minor: Statistics

B.A. Philosophy, University of Florida   2006 - 2009

- Minor: Business

SKILLS

Languages	C/C++, C#, Python, Swift
ML	Pytorch, Tenserflow, scikit-learn, imbalance-learn
Tools	Docker, Jupyter, LaTeX
Web	Django, Flask, Jekyll, Bootstrap, Bulma

EXPERIENCE

Application Engineer - Computer Vision   Jun 2021 - Sep 2022
i2x Solutions   *Tallahassee, FL*

- Summer internship transitioned into part time position.
- Overhauled and optimized the object detection model training and inference pipelines of a multiplatform golf putt analysis mobile application.

Information Technology Contractor   2012 - 2016
Northeast Florida Regional Council   *Jacksonville, FL*

- Serviced and maintained desktop and workstation hardware/software.

Quality Control Analyst   2009 - 2016
First Florida Credit Union   *Jacksonville, FL*

- Internal consumer loan auditor responsible for ensuring compliance with company and government policies and regulations.

RESEARCH EXPERIENCE

Graduate Researcher   Aug 2022 - present
Brain-Behavior-Computation Lab   *The University of Texas at Austin*

- Topic: Simulating biologically inspired lifelong learning in an image classification task utilizing Interleave Learning and Generative Replay.
- Advisors: Dr. Xue-Xin Wei, Dr. Risto Miikkulainen

Undergraduate Researcher   Jan 2020 - Apr 2021
Undergraduate Software Engineering Research Lab   *Florida State University*

- Topic: Automating Software Traceability Link Recovery and Maintenance using word embeddings within a Shallow Neural Network.
- Advisor: Dr. Chris Mills

Honors in the Major Program   Aug 2019 - Jul 2020
Undergraduate Thesis   *Florida State University*

- Topic: Skin Cancer Detection and Classification using an Artificial Neural Network
- Advisors: Dr. Sonia Haiduc, Ms. Sharanya Jayaramen

TEACHING

CGS 2100 Microcomputer Applications for Business and Economics   Spring 2018, Fall 2020, Spring 2021
Undergraduate Teaching Assistant   *Florida State University*

COP 3363 Programming I for Majors   Spring 2020
Undergraduate Teaching Assistant   *Florida State University*

COP 3014 Programming I for Nonmajors   Fall 2018 - Fall 2019
Undergraduate Teaching Assistant   *Florida State University*

PROJECTS

Programming Contest Suite Built a Django powered web application used for registration and management of ICPC style programming contests at Florida State University. Used by hundreds of students and faculty each semester. (View it here)

gSWIL Extended the Similarity Weighted Interleaved Learning framework to use synthetic images generated by an open-source DALL-E model. Course project for CS394N: Neural Networks.

ThriftySIRIUS Integrated a risk gating mechanism into the SIRIUS human-in-the-loop reinforcement learning framework designed to prompt for expert feedback based upon an intervention budget. Course project for CS391R: Robot Learning.

Skin Cancer Classifier Built a Flask powered web application to perform skin cancer image classification using the Inception v3 CNN architecture. Honors in the Major capstone project at Florida State University.

DungeonPy A Pygame implementation of a simple 2D RPG. Final course project for CIS4930: Python Programming.

HONORS & AWARDS

Phi Beta Kappa   2021
Alpha of Florida Chapter

Undergraduate Leadership Award   2019
Florida State University Department of Computer Science

Phi Kappa Phi   2019
Florida State University Chapter

Upsilon Pi Epsilon   2018
Florida State University Chapter

LEADERSHIP

- **Association for Computing Machinery - Florida State University Chapter**

President Emeritus & Webmaster	2020-2021
President	2019-2020
Treasurer	2018-2019
Social Chair	2017-2018

- **ACM at FSU Programming Contest**

Server Developer	2021-2024
Organizer	2020-2021
Question Writer	2018-2021

SERVICE

M.S. Admissions Committee — Jan 2023 - Feb 2023
Department of Computer Science — *The University of Texas at Austin*

- Student reviewer of applications to the on-campus MSCS program for the Fall 2023 admissions cycle.

EXTRA-CURRICULAR ACTIVITIES

- **UT Austin CTCN Journal Club** — 2022-present
  Member of the UT Austin Center for Theoretical and Computational Neuroscience Journal Club.

- **Server Maintainer** — 2021-present
  Designer and active maintainer of ACM at FSU's Docker Swarm server cluster, comprised of web apps and services deployed across 6 different domains.

- Mentor to multiple undergraduate CS students at Florida State University with a focus on open source development.