MICHAEL ILIE

Address:
212 Long Trail Terrace
Rockville, MD 20850

Email:
mcilie@icloud.com

Cell:
240-817-6154

Personal Website:
https://mci.sh

Experience

- Embedded Engineer and Project Manager at Cision Vision (July 2022-September 2022)
  - Worked on embedded engineering for Cision InVision device
  - Worked on image processing and AI based R&D projects for next generation InVision device
  - Marketing research for medical devices
  - Hired and onboarded consultants from UpWork for Marketing and for Clinical Study Management
  - Managed a team of ~10 people using Monday.com
- Intern/Computer Vision researcher at Lumo Imaging (January 2022-June 2022, October 2022-present)
  - Worked on calibrating dermoscopic full body imaging device
  - Developed neural network to classify 7 point dermatologic categories for lesions
- Software engineer at Medapptic, LLC (2020-2021)
  - Helped win and perform on NSF SBIR phase 1 grant for $225,000
  - Helped win and perform on TEDCO Rubric grant for $100,000
  - Co-author on NIST SBIR phase 1 grant
- Blair3sat Optical Programmer (2019-present)
  - Programmed optical payload simulations using C, Python, Fortran, and GLOW
  - Co-author of SPIE paper https://doi.org/10.1117/12.2567787
  - Embedded programmer/ Integrations
- Mechatronics intern at PSYONIC (June-July, 2021)
  - Worked on developing an application to interface with Bionic Ability Hand via Bluetooth Low Energy
- Montgomery Blair Highschool Machine Learning Club Captain (2021-present)
  - Taught machine learning concepts to students grades 9 through 12

Education

- Montgomery Blair High School Science, Mathematics, and Computer Science Magnet program (2019-present)
  - GPA: Unweighted: 3.97 Weighted:4.75
  - Graduated 1 semester early to pursue work at Lumo Imaging
- Volunteer hours: 169
- Relevant Coursework:
  - Magnet Analysis
  - Magnet Physics
  - Magnet Discrete
  - Algorithms and Data Structures
  - Magnet Research and Engineering
  - Magnet Foundations of Technology

Technical Skills

- Programming languages:
  - Python, C, C++, CUDA, Julia, Swift, NimLang, Go, Java, Node.js, F#
- Data Science/Machine Learning frameworks:
  - PyTorch, Flux.jl, Keras, Neataptic.js, Synaptic.js, cuBLAS, cuDNN, SciPy, NumPy, Dask, Dask-Cuda, Pandas-Profiling, Julia Distributed package
- Embedded:
  - Arduino, AVR, RP2040, RPi 3b/4b/cm3/cm4/0 2w, SAMD 21,
  - I2C, SPI, UART, OneWire, USB, BLE
  - Gem5
  - Experience with FPGAs (Xilinx Vivado, Vitis HLS, Intel Quark, Lattice Diamond, Cyclone 10CL016, XC7A100T, MachXO2 LCMXO2, NVME, DDR3)
- Simulations programming
  - Written simulations in CUDA, C++, Python, Julia
  - Simulated remote sensing optical payload using python, fortran, and GLOW (Airglow model from NCAR)
  - Nasa GMAT (STK equivalent)
- Thor Labs Optical Components
  - Experience with various mounting systems
  - Experience with collimator based laser imaging systems
- SBIR grant writing, budget review, grant performance
- Project Management using Monday.com
- FDA Cybersecurity Compliance
  - Specific experience with draft guidance FDA-2021-D-1158

Achievements

- Imagine Cup 2022 Global Finalist
- American Society for Mechanical Engineering 1st place prize Science Montgomery
- 2022 UPenn HealthHacks
  - 1st place overall
  - Popular Choice
  - 1st place Chronic disease track
  - AB In-bev award
- ExploraVision 2022 Honorable Mention (top 10%)
  - Project: Manufacturing in Microgravity
- 1st place Science-Montgomery CS Division 2018
  - Project: Analyzing the Security of Password Construction Standards
- 2nd place Science-Montgomery CS Division 2019
  - Project: Using Machine Learning to detect Deepfakes
- Top 5 United We Learn Challenge
- 1st place Aerospace Corporation regional fair winner
- 3rd place Thomas Jefferson BioCode competition
- 1st Place MBIT Coding Competition