

① TA Position:

④ Cybersecurity Internship:

- investigating Cybersecurity incidents
- network security monitoring
- scripting & Automation of tasks

⑧ Cybersecurity Certificates:

⑨ CTFs:

- [Fill this after completing a few]

⑩ USB Rubber Ducky:

- Oscilloscope
- Arduino nano, c++
- USB protocol
- Windows power shell
- 3D printing

⑬ Electrical Basics:

- Resistance, Voltage, Current
- Basic Logic Gates
- PCB Design
- Soldering

⑭ Mathhacks Hackathon:

- Intro to Arduinos
- Mouse movement detection hardware/software
- Noise reduction Software
- C++, Arduino IDE, Python
- Basic Game design
- Threading in Python

⑭ Comput 379 Operating Systems:

- [Fill this after taking the class]

⑬ DiscoverE Technology Specialist (Co-op):

- Google sheets/forms
- Javascript, Appscript, Python, SQL, HTML, Block Coding
- Employee Sign in/out system, Antennas Inventory System
- Lego Robotics
- Tech support
- 3D Printing, Laser cutting

⑮ Calculus:

- Javascript, Block coding, Python, Unity
- Scratch, Makecode Arcade, Lego robotics
- Teaching & classroom Management

⑬ WSI Swimming Instructor Training:

- Teaching Swimming
- Confidence and Communication skills to talk to and teach children

⑩ Google sheets:

- Budget Tracker, Todo List
- Inventory Management System
- Appscript, Javascript, HTML
- Sheet Formulas

⑭ Comput 291 Database Management:

- SQL, MongoDB, Python
- Database Management
- Queries

⑬ Malware Development:

- Key Loggers
- Papillon
- Trojans
- C#

⑬ Comput 229 Computer Architecture:

- RISC-V Assembly
- Computer Architecture: CPU, Memory, Logic gates
- Floating Point Arithmetic

⑬ Neural Networks:

- Processing IDE, Javascript, C, C++
- XOR Problem
- Genetic Algorithms
- Back propagation
- Basic Game design as a training grounds

⑬ 3D Game Engine:

- Javascript Canvas API
- Self made matrix & vector math libraries
- Orthogonal/ Perspective Projection

⑬ Comput 201 Unix & C:

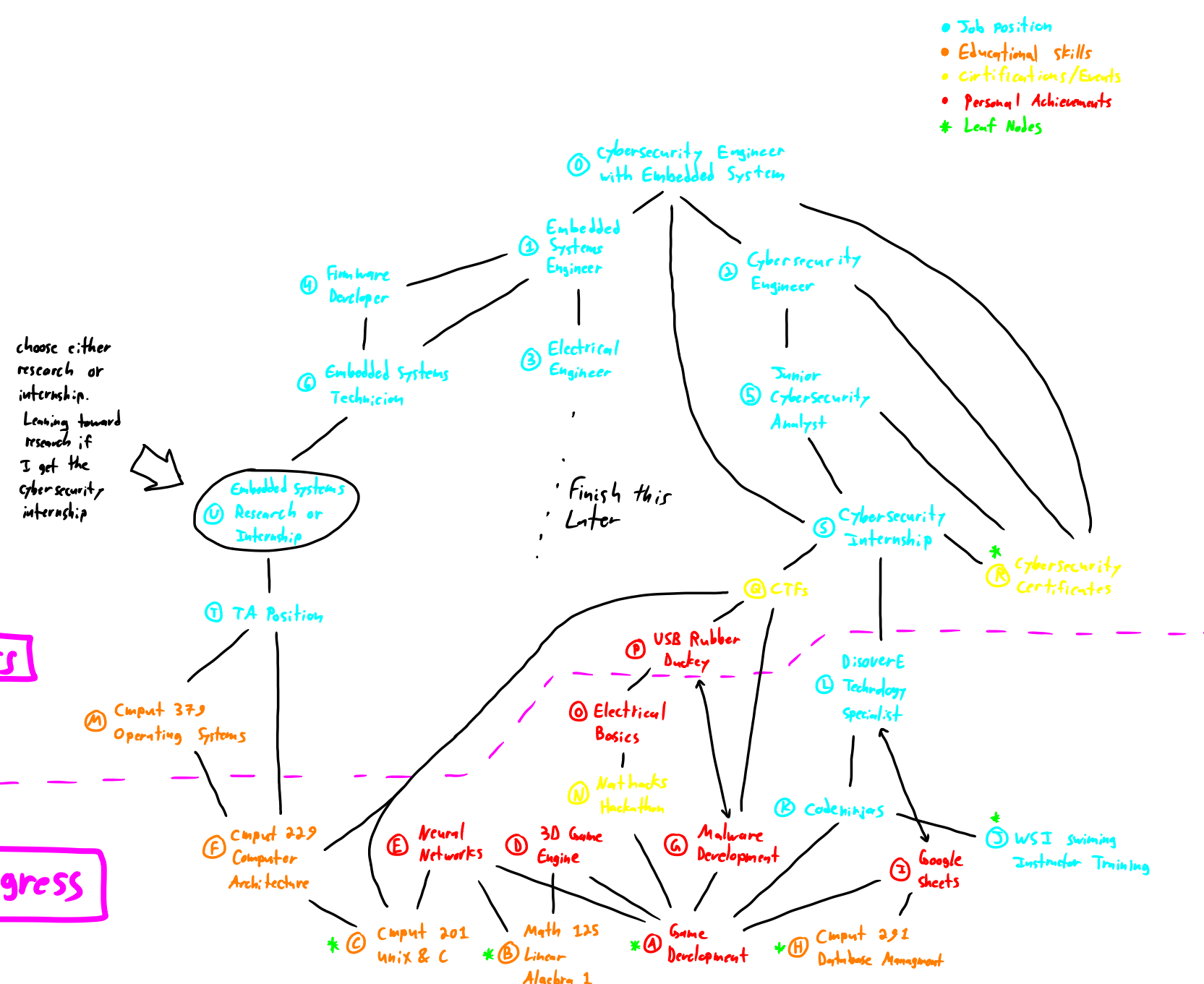
- Unix & Ubuntu Linux
- C & C++
- Make files

⑬ Math 125 Linear Algebra 1:

- Matrices & vectors
- RREF
- Orthogonal Projection

⑬ Game Development:

- Javascript Canvas API
- Processing IDE
- OOP
- Basics of Programming
- HTML
- Sprite design/art
- Sound integration libraries



⑱ Embedded Systems Engineer:

- Connection between hardware & software
- Microcontrollers, microprocessors, Raspberry Pi, Arduino
- C, C++, Assembly
- efficient/optimized with limited resources

⑲ Cybersecurity Engineer:

- designing secure systems
- hardware & software solutions like: firewalls, intrusion detection, anti-malware

⑲ Electrical Engineer:

- Hardware design
- circuit design
- PCB layout/design
- Microcontrollers & Processors

⑱ Firmware Developer:

- Design Firmware Architecture for specific hardware platforms
- C, C++, Assembly
- Develop drivers & interfaces to enable communication between hardware and software

⑲ Junior Cybersecurity Analyst:

Future Progress

Current Progress

TO DO

- ① Find out what to do with Comput 340 and the course after it (maybe connect this to here)
- ② Find the next step after Electronic Basics
- ③ Find the connection from TA to Electrical Engineer
- ④ Find the connection from TA position to Firmware Engineer
- ⑤ and connect this to it
- ⑥ Figure out what to do with operating systems after 379