Legend:
- ● Job Position
- ● Educational skills
- ● Certifications/Events
- ● Personal Achievements
- ★ Leaf Nodes

Future Progress

Current Progress

choose either research or internship.
Leaning toward research if I get the cybersecurity internship

Finish this Later

Diagram nodes:
- Cybersecurity Engineer with Embedded System
- Embedded Systems Engineer
- Firmware Developer
- Cybersecurity Engineer
- Embedded Systems Technician
- Electrical Engineer
- Junior Cybersecurity Analyst
- Embedded Systems Research or Internship
- Cybersecurity Internship
- Cybersecurity Certification
- TA Position
- CTFs
- USB Rubber Ducky
- Electrical Basics
- DiscoverE Technology Specialist
- Neuhauks Hackathon
- Cmput 379 Operating Systems
- Cmput 229 Computer Architecture
- Neural Networks
- 3D Game Engine
- Malware Development
- Codeninjas
- Google sheets
- WSI Swimming Instructor Training
- Cmput 201 Unix & C
- Math 125 Linear Algebra 1
- Game Development
- Cmput 291 Database Management

⬡ Embedded Systems Engineer:
- Connection between hardware & software
- Microcontrollers, microprocessors, registers, Arduino boards, uP
- C, c++, assembly
- efficient/optimized with limited resources

② Cybersecurity Engineer:
- designing secure systems
- hardware & software solutions like: Firewalls, intrusion detections, antimalware

③ Electrical Engineer:
- Hardware design
- circuit design
- PCB layout/design
- Microcontrollers & processors

④ Firmware Developer:
- Design Firmware Architecture for specific hardware platforms
- C, c++, Assembly
- Develop drivers & interfaces to enable communication between hardware and software

⑤ Junior Cybersecurity Analyst:

Ⓣ TA Position:

Ⓒ Cybersecurity Internship:
- investigating cybersecurity incidents
- network security monitoring
- scripting & Automation of tasks

Ⓒ Cybersecurity Certification:

Ⓒ CTFs:
- [Fill this after completing a few]

Ⓓ USB Rubber Ducky:
- Oscilloscope
- Arduino nano, c++
- USB protocol
- Windows Powershell
- 3D printing

Ⓓ Electrical Basics:
- Resistance, voltage, current
- Basic Logic Gates
- PCB Design
- Soldering

Ⓝ Neuhauks Hackathon:
- Intro to Arduinos
- Muscle movement detection hardware/software
- Noise reduction Software
- C++, Arduino IDE, Python
- Basic Game design
- Threading in python

Ⓜ Cmput 379 Operating Systems:
- [Fill this after taking the class]

Ⓛ DiscoverE Technology Specialist (Co-op):
- Google sheets/forms
- Javascript, Appscript, Python, SQL, HTML, Block Coding
- Employee Sign in/out system, Materials Inventory System
- Lego Robotics
- Tech support
- 3D Printing, Laser cutting

Ⓚ Codeninjas:
- Javascript, Block coding, python, Unity
- Scratch, Makecode Arcade, Lego robotics
- Teaching & classroom Management

Ⓙ WSI Swimming Instructor Training:
- Teaching Swimming
- Confidence and Communication skills to talk to and teach children

Ⓘ Google sheets:
- Budget Tracker, Todo List
- Inventory Management System
- Appscript, Javascript, HTML
- Sheet Formulas

Ⓗ Cmput 291 Database Management:
- SQL, MongoDB, Python
- Database Management
- Queries

Ⓖ Malware Development:
- Key Loggers
- Papilion
- Trojans
- C#

Ⓕ Cmput 229 Computer Architecture:
- RISC-V Assembly
- Computer Architecture: CPU, Memory, Logic gates
- Floating Point Arithmetic

Ⓔ Neural Networks:
- Processing IDE, Javascript, C, C++
- XOR Problem
- Genetic Algorithm
- Back Propagation
- Basic game design as a training grounds

Ⓓ 3D Game Engine:
- Javascript Canvas API
- Self made matrix & vector math libraries
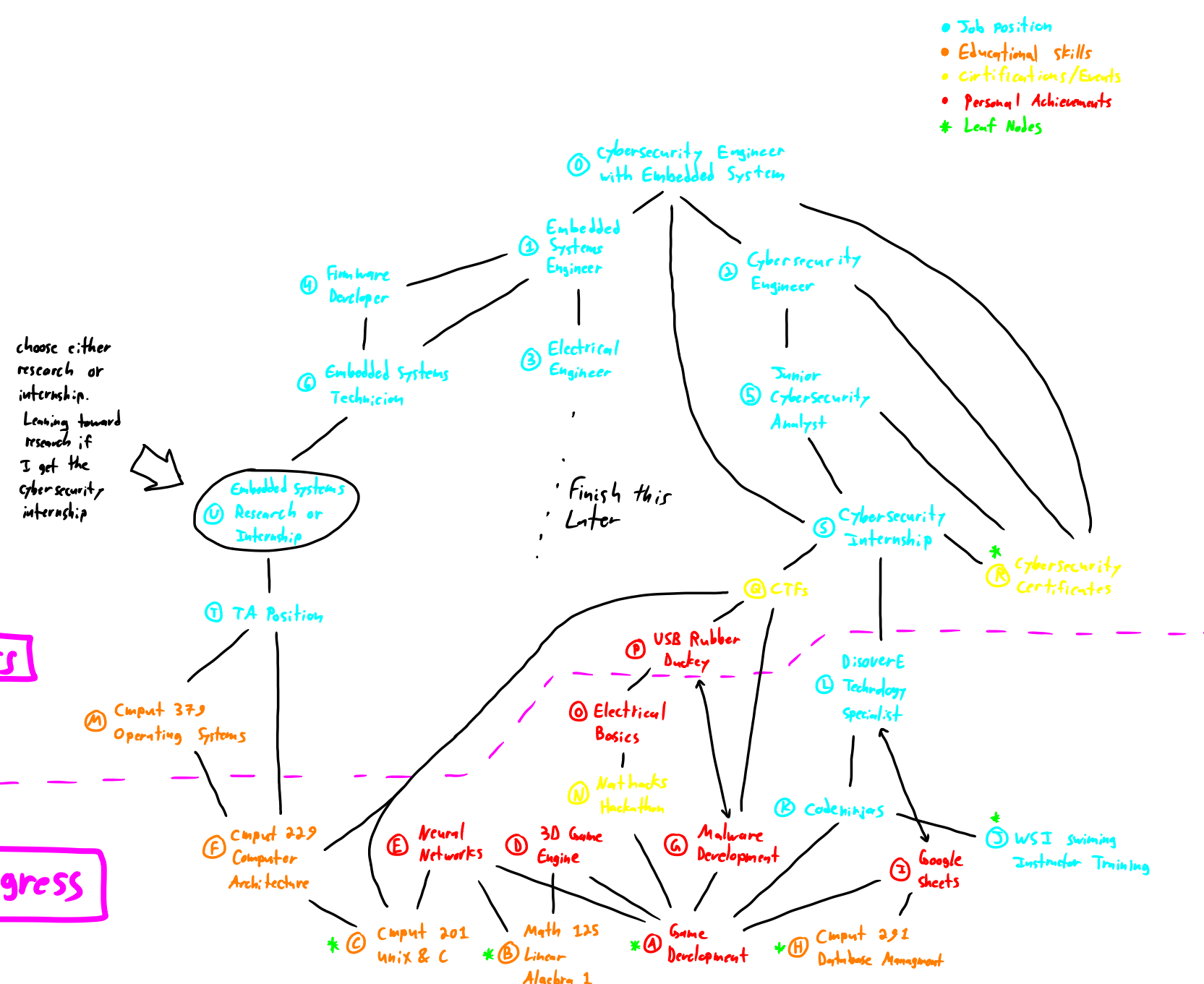- Orthogonal / perspective Projection

Ⓒ Cmput 201 Unix & C:
- unix & ubuntu Linux
- C & c++
- Make files

Ⓑ Math 125 Linear Algebra 1:
- Matrices & vectors
- RREF
- Orthogonal Projection

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

TO DO

- Find out what to do with Cmput 340 and the course after it (maybe connect this to here)
- Find the next step after Electronic Basics
- Find the connection from it to Electrical Engineer
- Find the connection from TA Position to Firmware Engineer
- and connect this to it
- Figure out what to do with operating systems after 379