

⑤ TA Position:

⑧ Cybersecurity Internship:

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

⑨ CTFs:

- [Fill this after completing a few]

⑩ USB Rubber Ducky:

- Oscilloscope
- Arduino nano, C++
- USB protocol
- Windows Powershell
- 3D printing

⑪ Electrical Basics:

- Resistance, voltage, current
- Basic Logic Gates
- PCB Design
- Soldering

⑫ Mathhacks Hackathon:

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

⑬ Comput 333 Operating Systems:

- [Fill this after taking the class]

⑭ DiscoverE Technology Specialist (co-op):

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

⑮ Codingmjas:

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

⑯ WSI Swimming Instructor Training:

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

⑰ Google sheets:

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

⑱ Comput 291 Database Management:

- SQL, MongoDB, Python
- Database Management
- Queries

⑲ Malware Development:

- Key Loggers
- Papillon
- Trojans
- C#

⑳ Comput 239 Computer Architecture:

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

㉑ Neural Networks:

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

㉒ 3D Game Engine:

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

㉓ Comput 201 Unix & C:

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

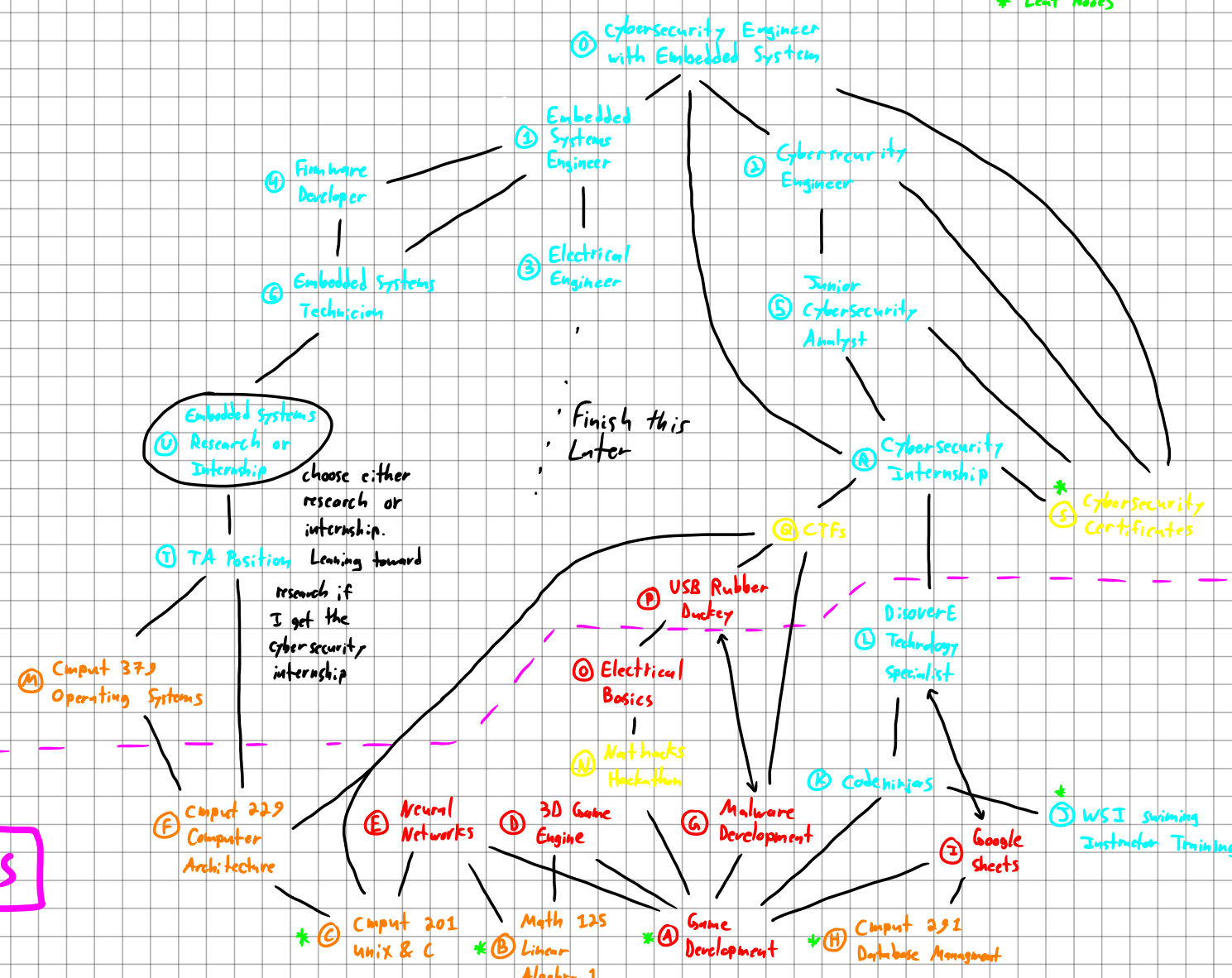
㉔ Math 125 Linear Algebra 1:

- Matrices & vectors
- RREF
- Orthogonal Projection

㉕ Game Development:

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

- Job position
- Educational skills
- Certifications/Events
- Personal Achievements
- Leaf Nodes



① Embedded Systems Engineer:

- connection between hardware & software
- microcontrollers, microprocessors, sensors, hardware, etc.
- C, C++, assembly
- efficient/optimized with limited resources

② Cybersecurity Engineer:

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

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:

TO DO

- Find out what to do with Comput 340 and the course after it (maybe connect this to here)
- Find the next step after Electronic Basics
- Find the connection from the 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 333