ALEXANDRA BELLON

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EDUCATION

The University of Texas at Austin, Class of 2021
BS in Computer Science and Mathematics, 3.68 GPA

Completed Courses
Network Security & Privacy, Operating Systems, Computer Architecture, Matrices, Abstract Algebra, Number Theory, Topology

TECHNICAL SKILLS

Most comfortable in Python, Java and C, familiar with C++, HTML, CSS, MySQL and Haskell.

Comfortable with Linux and UNIX, Shell (bash/zsh), Git, Vim, and command line tools. Familiar with k8s and Docker.

AWARDS

Capture the Flag
1st SunshineCTF, 3rd Angstrom CTF, 3rd AtlassianCTF ('18 and '19), 10th SwampCTF

Texas Network Massacre
1st at Attack/Defense CTF

Hackathons
1st at TAMUhack '19, 3rd at Hacklahoma '19, top 10 at Hacklahoma '18, 14 total

UTCS Grace Hopper Conf. Scholarship (2019)

WISP DEFCON Scholarship (2019)

USENIX Security Diversity Grant (2020)

EXPERIENCE

Security Engineering Intern | Mozilla — **Summer 2020**
- Worked on Dependency Observatory, a tool that allows developers to check how secure an NPM package is before using it in their project.
- Researched common security weaknesses in NPM, PyPI and Cargo packages
- Worked with **Python, k8s, Docker, Flask, GraphQL**

Security Analyst Intern | Electronic Arts — **Summer 2019**
- Used **Python** to automate checking for open ports and other attack vectors on EA's cloud instances. Scanned **800+ instances**, found **1400+ security incidents**

Teaching Assistant for CS361: Intro to Security | UT Austin — **Jan - Dec 2019**
- Created and graded security-focused assignments for **80+ students**
- Lectured on various topics in security like **cryptography** and **forensics**
- Created and ran a CTF competition for the students' final exam

SELECTED PROJECTS (more on GitHub/website)

Anshel-Anshel-Goldfeld key exchange with Rubik's Cube Group
- Implementation of a key exchange protocol that uses non-commutative cryptography with the Rubik's Cube Group written in **Python**

Goldreich–Goldwasser–Halevi encryption scheme
- Implementation of a lattice-based cryptosystem written in **Python**

Drunken Bishop
- Program written in **Python** that uses the Drunken Bishop algorithm to output the ASCII art representation of an OpenSSH public key fingerprints

Scrambled: Rubik's Cube based steganography | published in 'PagedOut!' zine
- One-page paper about a steganography problem I created for UTCTF
- Published in the security-focused zine 'PagedOut!' (pagedout.institute)

AllerGen | 1st place at TAMUHack 2019
- Allows you to input allergens then scan food barcodes to see if you are allergic
- Worked in **Python** to query USDA database for ingredients, determine if user is allergic, and find common ingredients between foods

LEADERSHIP

President | Information & Systems Security Society — **2018 – present**
- Write security challenges for Capture the Flag (CTF) competitions with **50+ participants,** as well as a yearly **international CTF with 1200+ teams**
- Lead a team of **15 officers** and serve an organization with **100+ members**

Captain | UT CCDC & CPTC Team — **2019 – present**
- Lead a team of 8 in red team and blue team security competitions
- Placed 2nd in 2019, 3rd in 2020 at Southwest Regionals (CCDC), 2nd in 2019 at New England Regionals '19 (CPTC)

Web/Tech VP | Association for Computing Machinery — **2018 – 2020**
- Implemented new features and fixed bugs on UT's ACM chapter website
- Wrote curriculum for and hosted a series of **8-10 introductory workshops** for freshmen with topics like Linux basics, Git/VCS, debugging, etc

OTHER ACTIVITIES

Q++ Member LGBTQ+ computer science club — **2019 - present**
Hispanic Association of Computer Scientists Member — **2017 - present**
Hook 'Em Arts Member Performing Arts appreciation club — **2017 - present**
Austin Quidditch Club sports team — **2017 - 2019**