## Chloe Fox

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**EDUCATION** 

Arcadia University Glenside, PA

Major:Bachelor of Science in Computer ScienceExpected May 2024Minors:Mathematics, StatisticsMajor GPA: 4.00

**Honors:** Honors Program (2020-Present), Dean's Honor List (2020-Present)

**WORK EXPERIENCE** 

Actuarial Analyst Intern

Allied Services

Clarks Summit, PA

Student Intern. IT

June 2023 – Present

Designed a comprehensive third-party vendor security assessment to identify and mitigate potential vulnerabilities

- Facilitated in migrating 3000 employee files from a paper system to a document manager for enhanced efficiency
- Improved the security of 20 SQL servers through implementation of robust user access management protocols
- Fielded help desk calls in a professional manner effectively troubleshooting technical issues remotely for end-users

## Long Term Care Group (LTCG)

Trevose-Feasterville, PA

June 2022 – August 2022

- Assisted in conducting and analyzing LTC industry research to gain an understanding of current market conditions
- Condensed two Claim Reserve Summaries, reducing file size by 80% to decrease opening and updating times
- Programmed user defined functions in Excel using VBA to reduce manual input of common actuarial formulas
- Prepared and processed data, in Microsoft Access and Excel, for consulting actuaries use in financial reporting
- Presented to senior consulting actuaries, summarized completed projects as well as the skills learned from them

Allied Services Clarks Summit, PA

Student Aide, HR

June 2019 – August 2021

- Managed dependent audit of employee health insurance, effectively removing 10 unauthorized dependents
- Conducted professional license audits in order to keep all professional licenses organized and up to date
- Assisted in employee retention efforts by carrying out 30-day check-in interviews with new employees
- Aided in orientation and onboarding weekly for up to 25 new hires by assisting with paperwork and employee IDs

## **MENTORSHIPS**

Aon

Online

Actuarial Mentorship

February 2022 – May 2022

- Participated in two case studies, both by myself and as a team, that replicated work done by the Aon team
- Gained insight into the actuarial field in group calls with executives and through one-on-one mentorship

## **LEADERSHIP EXPERIENCE**

#### **Arcadia University Honors Co-President**

March 2023 - Present

BOB: Bee of Belonging

- Organize and run council meetings to check in with the committees and discuss recent news within the program
- Hold town halls to allow all voices of the community to be heard and to facilitate new ideas within the program
- Oversee multiple committees and provide support to committee leaders in resolving any issues that may arise
- Collaborate with the honors program director to strategically shape the future direction of the program
- Facilitate a positive environment and experience within the program as well as help attract new members

### **Arcadia University Honors Coordinator**

August 2021 – May 2023

House Mentor, Beekeepers Co-Coordinator: Honors Floor

- Organize engaging and informative events for house members to participate in at bi-weekly meetings
- Represent the house and committee at weekly Honors Council meetings to voice new ideas from their members
- Organize collaborative events for the Honors Floor that provide educational and professional development

# Arcadia University Honors College Access Mentoring Program (CAMP)

September 2020 – **Present** 

Mentor

- Mentor students at a local high school to help prepare them for their future goals after they graduate
- Guide students who are struggling with schoolwork through individualized review of current class materials

• National Cyber League and Social Engineering Teams | CS Club

### **SKILLS**

#### Coding

- In depth experience with using Java as an object-oriented programming language
- Experience with Python and data analysis libraries such as seaborn, numpy, sckit-learn, and pandas
- Professional and educational experience with MySQL querying and relational database creation
- Exposure to JavaScript and React/Node frameworks in terms of reading, analyzing, and modifying code
- Experience with implementing efficient solutions through careful design and analysis of algorithms

## Cybersecurity

- Fundamental understanding of the security assessment process from start to finish: intelligence gathering, initial foothold, network enumeration, privilege escalation, persistence, lateral movement, password cracking, data exfiltration, and reporting
- Experience with tools such as: Metasploit, Hashcat, Nmap, Dirbuster, Wireshark, Ngrok, and Mimikatz
- Familiar with social engineering and its importance in the security assessment process

## **National Cyber League Competition**

Placed in the top 1% of 3593 teams in the team game and top 10% of 6273 competitors in the individual game

OSINT: Utilized the OSINT framework, *Google Dorking*, Shodan, and Wigle
 Cryptography: Became familiar with different *encryption* methods and *ciphers*

Password Cracking: Gained a more in depth understanding of *Hashcat* and identifying hash types
 Log Analysis: Became more familiar with *grep* and how to read and identify *logs* properly
 Network Traffic Analysis: Increased knowledge of *Wireshark* capabilities and network protocols
 Forensics: Learned to use a diverse toolset for file content and memory dump analysis

• Scanning and Reconnaissance: Learned how to explore metadata and utilize the information outputted by *Nmap* 

• Enumeration & Exploitation: Gained understanding of how to use *Ghidra* to reverse engineer an executable file

• Web Application Exploration: Developed skills in JavaScript exploitation and the use of Burp Suite

## **Operating Systems**

MacOS, Windows, and Linux (Kali and Ubuntu)

#### Virtual Machines and Containers

• Experience deploying an configuring *Docker* containers and VMs in *VirtualBox*, *Google Cloud*, and *Oracle Cloud* 

#### **PROJECTS**

#### Evil ChatGPT

- Trained GPT3 model to socially engineer customers for personally identifiable information (PII)
- Deployed a fake customer service website with chat capabilities on a Google Cloud machine
- Future plans to dockerize the application to make it easily deployable by the open-source community

#### Arcadia Place

- Deployed application similar to Reddit's r/place from open-source GitHub repository
- Made several modifications to the application to meet projects needs and desired specifications
- Ran program on an Oracle cloud server in order to display it on a touchscreen board on campus
- Organized a campus event to promote collaboration and creativity and celebrate personal identities and interests

#### Analysis on the Current State of the Tech Workforce

- Designed and executed a data analysis project in Python based on the 2021 Stack Overflow survey
- Posed research questions to understand current employment levels, industry demographics, and desired skills
- Used scikit-learn library to do linear regression analysis in order to predict salaries based on qualifications
- Correlation analysis between salary and factors such as age, gender, race, and years of experience
- Wrote a technical report overviewing my research methodology and significant findings

## **Baby Name Database**

- Worked on a team to create a MySQL relational database with tables for names by birth year, gender, and state
- Created an Entity Relationship (ER) diagram to model the design of the database before building it
- Used Excel pivot tables in order to preprocess the data in to the format that was needed for final database design
- Wrote an interactive Java program so that users could easily retrieve desired information from the database