

# DAVID GARY

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## TECHNICAL SKILLS

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**Programming Languages:** Python, C++, C, Go, Haskell, JavaScript

**Developer Tools:** Git, TeX, Docker, Kafka

**Scripting:** Bash, Lua, PowerShell

## EXPERIENCE

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### Freelance

**Remote**

*Freelance Software Developer*

*Aug. 2021 - Current*

- Developed a novel, distributed, web scraping system to locate and index Google Reviews for market research
- Designed a recommender system for course learning pathways used by 10,000+ users
- Created a machine learning pipeline to convert a publisher's collection of handwritten letters into digital text

### University of North Carolina at Charlotte

**Charlotte, NC**

*Graduate Research Assistant*

*May. 2022 - Aug. 2023*

- Built a research framework to evaluate second-order optimization algorithms
- Implemented and experimentally tested various replay buffer designs for continual reinforcement learning
- Converted multiple legacy MATLAB codebases to Python, enhancing their maintainability and extensibility

*Graduate Instructional Assistant*

*Aug. 2022 - Aug. 2023*

- Created adaptable software tools to automate plagiarism detection and course management
- Developed interactive exercises to simulate a complete software development life cycle
- Graded assignments and assisted students with course material

### Hexagon Solutions

**Remote**

*Machine Learning Engineering Intern*

*Jan. 2022 - May. 2022*

- Scripted network log analysis tools to provide feedback for reinforcement learning agents
- Performed data analysis and visualization to identify and mitigate security vulnerabilities for various clients
- Added new features to a web application that provides a unified view of a client's security posture

### Utah Tech University

**Saint George, UT**

*Undergraduate Research Assistant*

*Aug. 2021 - May. 2022*

- Contributed to implementation of a university-wide course scheduling & classroom placement system
- Spearheaded a data analysis project to find optimal course enrollment sequences for undergraduate students
- Led multiple security projects that utilized machine learning for advanced side-channel attacks

*STEM Outreach Program Instructor*

*Jan. 2021 - Jan. 2022*

- Fully developed and instructed a multi-tiered afterschool program on cybersecurity and cryptography
- Created the curriculum for a machine learning summer camp and a chess camp
- Performed regular 3D printer maintenance and assisted in the design process for hundreds of models

## EDUCATION

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### University of North Carolina at Charlotte

**Charlotte, NC**

*Master of Science in Computer Science*

*Expected Dec. 2023*

- 4.0 GPA & Phi Kappa Phi Honor Society
- Graduate Certificate in Applied Artificial Intelligence

### Utah Tech University

**Saint George, UT**

*Computer Science Coursework*

*Aug. 2020 - May. 2022*

- Dean's List: Fall 2020 – Spring 2022
- Department of Computing Student of the Year 2022

### American University

**Washington, DC**

*Bachelor of Arts in Psychology*

*May. 2018*