GRACE LYTLE

Boise, ID 🔗 https://gracelytle.tenacious3.com ✉ Grace@Tenacious3.com (208) 891-7331 ⌗ github.com/GraceLytle

EDUCATION

Bachelor of Science in Computer Science, Emphasis in Cybersecurity
Master of Science in Cybersecurity, Emphasis in Computer Science
Boise State University

- Bachelor's Completion: May 2026 | Master's Completion: May 2027
  - CyberCorps (SFS) Scholarship for Service Scholar, Federally Funded by the National Science Foundation
- Cumulative GPA: 3.437 | Computer Science GPA: 3.73

Bachelor of Arts in Multidisciplinary Studies
Minor in Music, Emphasis in Trumpet Performance
Boise State University | May 2019

SKILLS

Programming Languages
Java (Advanced), Python (Advanced), C# (Advanced), SQL (Intermediate), C/C++ (Intermediate) Dart, (Intermediate)

Web Development Languages
HTML (Advanced), CSS (Advanced), JavaScript (Intermediate), Pug (Advanced), Go (Advanced), Node.js (Intermediate), React (Intermediate), Flutter (Intermediate)

Integrated Development Environments
Visual Studio Code, Microsoft Visual Studio, IntelliJ IDEA, SQL Management Studio, Jupyter Notebook, Anaconda, Vi Editor

Operating Systems
Windows, Linux

Cybersecurity & Development Tools
Stellar Cyber (SIEM), Confluence, Jira, Fiddler, Wireshark, Chrome Developer Tools, Postman, FileZilla, LaTeX, Microsoft Office Suite

Vulnerability Assessment
Path Traversal, Access Control, Authentication, Server-side Request Forgery (SSRF), File Upload Vulnerabilities, OS Command Injection, SQL Injection

Soft Skills
Public Speaking, Presenting, Performing Music on Stage, Grant Writing, Project Management, Collaboration, Conflict Resolution

RELEVANT WORK EXPERIENCE

Institute for Pervasive Cybersecurity | August 2024 – Current
Collaborate as part of a cybersecurity team to identify, assess, and mitigate security risks for small businesses in rural Idaho.

- Utilized Stellar Cyber SIEM tool for log aggregation, incident correlation, and escalation to streamline threat detection and response processes.
- Conducted vulnerability assessments and recommended remediation steps for identified risks, ensuring compliance with cybersecurity best practices.
- Analyzed and interpreted logs to identify patterns indicative of potential threats, escalating high-priority incidents for immediate response.
- Managed and maintained detailed cybersecurity documentation and workflow guides in Confluence to standardize incident handling procedures.
- Coordinated service tickets and incident tracking through Jira, ensuring timely resolution of security issues and efficient collaboration among team members.

Tools Used: Stellar Cyber SIEM, Confluence, Jira, Microsoft Office Suite
Skills Developed: Threat Analysis, Incident Response, Vulnerability Assessment, Documentation, Client Communication

PROJECTS

Treefort Music Festival Band Recommendation App | December 2024
Led a team in the development of a personalized band recommendation system for the Treefort Music Festival in Boise, Idaho, utilizing a modern tech stack.
- Built a responsive static web app using Dart with the Flutter framework. Designed and deployed a C# API connected to an MS SQL database hosted on Azure, enabling efficient data retrieval and storage.
- Integrated authentication using Auth0, allowing users to securely sign in with their email or social accounts to store and retrieve personalized preferences.
- Implemented a personalized recommendation scoring algorithm to suggest bands based on user preferences.
- Deployed the web app as a static site using Azure Storage.

Tools Used: Dart, Flutter, C#, Azure Static Storage, Azure MS SQL, Auth0, Responsive Web Design
Site: https://treefort.z5.web.core.windows.net **Github:** Request Access

AI-based Cyber Attack Detection | October 2024
Applied machine learning algorithms (Random Forest, Decision Tree, Artificial Neural Networks, Support Vector Machines) to phishing, network intrusion, and Android malware datasets.
- Prepared data by analyzing and removing outliers and handling missing values to improve model accuracy.
- Trained models using 10-fold cross-validation and an 80/20 split while avoiding overfitting.
- Fine-tuned parameters like tree depth, kernel types (Linear, Polynomial, RBF), and network architectures (ANN) to maximize performance across datasets.
- Compared algorithm performance across precision, recall, and F1-score, presenting results with clear visualizations.

Tools Used: Python, Anaconda, JupyterLab, ML Libraries
Github: https://github.com/GraceLytle/CS597-CyberAI-P1

Security and Cryptography RSA Key Generation Challenge | December 2023
Completed a challenge-based final exam analyzing RSA key vulnerabilities.
- Designed and implemented a strong public RSA key resistant to common cryptanalysis attacks (Fermat, Initial Segment, One Line, GCD, and Pollard P-1) using Python scripting in SageMath.
- Organized and iterated over classmates' public keys, successfully cracking three by exploiting close p and q prime factors using Fermat's factorization method.

Tools Used: Python, SageMath, Fermat's Factorization Techniques, Cryptography Libraries, RSA Cryptanalysis
Portfolio Site: https://gracelytle.tenacious3.com

BauerMusicStudio.com | June 2021 - Current
Developed, built, and maintain a custom musician portfolio site hosted as an Azure static web app.
- Designed and implemented site using Hugo static site generator, leveraging templating in Go to create a customizable and modular architecture.
- Integrated Formspree API for secure form submissions, enabling user to request trumpet lessons through the site.
- Deployed on Azure Static Web Apps for fast, reliable, and scalable performance, optimizing content delivery and minimizing downtime.
- Implemented responsive design principles to ensure a consistent user experience across desktop and mobile devices.

Tools Used: Hugo, Go, Azure Static Web Apps, Formspree, Responsive Web Design
Site: https://www.bauermusicstudio.com **Github:** https://github.com/BauerMusicStudio/BauerMusicStudio.com

BeMyValentine.tenacious3.com | February 2024 - Current
Developed, built, and maintain a custom React site hosted as an Azure static web app.
- Implemented reusable components for UI elements, allowing for scalability and maintainability of the codebase.
- Managed state and event handling efficiently using React hooks to create dynamic, responsive user interactions.
- Optimized performance through lazy loading and code-splitting, reducing initial load time and enhancing user experience on both desktop and mobile.

Tools Used: React, JavaScript, Azure Static Web Apps, React Hooks, Responsive Web Design
Site: https://bemyvalentine.tenacious3.com **Github:** https://github.com/GraceLytle/BeMyValentine

LEADERSHIP & TEAM EXPERIENCE

Boise State University Artificial Intelligence for Cybersecurity Club | August 2024 - Current
Treasurer and Event Coordinator
- Collaborated as a club to train and launch a Large Language Model (LLM) using PyTorch, gaining hands-on experience in deep learning frameworks and model deployment

The Brass Band of the Treasure Valley | August 2022 - Current
Section cornet player for Idaho's premier British Brass ensemble

Boise State University Trumpet Club & Ensemble | August 2016 - May 2018
President of the BSU Trumpet Club & Ensemble
- March 2018, coordinated event and wrote grant to obtain funding for Tom Hooten, Principal Trumpet of the LA Philharmonic, to visit the BSU Music Department

Keith Stein Blue Thunder Marching Band | August 2014 - May 2018
Trumpet player in the Blue Thunder Marching Band for BSU

WORK HISTORY

My diverse work experience has equipped me with strong interpersonal, leadership, and problem-solving skills. I have excelled in customer-facing roles, collaborating with teams and managing responsibilities under pressure. These roles have strengthened my communication, adaptability, and ability to think critically, all of which I bring to my professional pursuits in cybersecurity, AI and computer science.

Bartender | The Gas Lantern Drinking Company
February 2021 - October 2021 | Part-time 10 - 20 hrs.

Bakery Clerk | Albertsons on Broadway
October 2018 - May 2019 | Part-time 20 - 30 hrs.
October 2019 – May 2020 | Full-time

Packaging Technician | Mother Earth Brewing Company
May 2019 - September 2019 | Full-time

Bartender & Staff | Alibi Industries
April 2018 - May 2019 | Part-time 20 - 30 hrs.

Sales Associate | Old Navy
June 2017 - May 2019 | Part-time 10 - 20 hrs.

Home & Garden Associate | Fred Meyer
May 2016 - June 2017 | Part-time 20 hrs.

Principal Trumpet Player | All Saint's Presbyterian Church
November 2014 - May 2019 | Part-time 3 hrs.

Shift Manager | Papa Murphy's
August 2014 - April 2018 | Part-time 20 - 30 hrs.

REFERENCES

Distinguished Professor Marion Scheepers
Professor of Mathematics
(208) 426-1033 | mscheepe@boisestate.edu

Professor Andre Keys
Clinical Professor of Computer Science
(208) 426-5766 | andrekeys@boisestate.edu

Professor Shane Panter
Clinical Assistant Professor of Computer Science
(208) 426-3317 | shanepanter@boisestate.edu

Dr. Derek Ganong
Assistant Professor of Trumpet and Director Jazz Studies
(208) 604-4299 | derekganong@boisestate.edu