

# ADRIAN GABALES

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## EDUCATION

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- **Western Washington University** **Bellingham, WA**  
*Bachelor of Science in Computer Science* *Sep. 2018 – Expected Mar. 2022*

## SKILLS

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- **Programming Languages:** Python, Java, C, C++, Javascript
- **Databases:** MySQL, SQLite, PostgreSQL
- **Technologies:** Docker, PyTorch, Numpy, Pandas, Seaborn, React, SQLAlchemy, Flask, Chart.js, Bootstrap, HTML/CSS
- **Developer Tools:** VS Code, Vim, Git

## EXPERIENCE

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- **Undergraduate Research Assistant** **Bellingham, WA**  
*Dr. Tarek Idriss* *Sep. 2020 - Present*
  - **Physically Unclonable Functions (PUF):**
    - \* Created scripts in Python and Bash that generated, categorized and tested data between security of PUFs.
    - \* Analyzed how different loop configurations affected linearity and security of PUFs.

## PROJECTS

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- **Lightbulb** **Winter 2020**  
*Python, Flask*
  - Developed a Class Assessment tool for instructors with a team of three students using Python and Flask.
  - Designed database schemas to interface student and teacher data on PostgreSQL through object relational mapper SQLAlchemy.
  - Built frontend by utilizing HTML, CSS, Bootstrap and managed server side processing with AJAX.
  - Generated graph visualizations on student responses by integrating Chart.js.
- **Youtube Playlist to Spotify Playlist Converter** **Summer 2020**  
*Python, Youtube API, Spotify API, Spotipy*
  - Developed a converter for Youtube playlists to Spotify playlists using Python, Spotify API and Youtube API.
  - Handled data transferring from Youtube and Spotify by utilizing Youtube API and Spotify API via Spotipy Python library.
- **Productivity Bot** **Dec 2020 - Present**  
*C#, Discord API, Docker*
  - Developed a Discord bot capable of giving server commands and issuing user requests boosting productivity and workflow.
  - Prevented deployment issues in the future by containerizing the Discord bot using Docker.
- **Microshell** **Spring 2020**  
*C*
  - Created a functioning microshell that is capable of processing common shell commands.
  - Implemented common shell commands like cd, ls, pipes, processing scripts, and signal processing.
- **Deadwood** **Fall 2020**  
*Java, JavaFX*
  - Succeeded in creating the Deadwood card game in Java, enabling multiple players to play the game.
  - Brainstormed and designed class diagrams with partner to facilitate overall game flow.
  - Detected scalability issue of initial implementation and resolved by applying the MVC design pattern to allow integration with JavaFX for a GUI.