

Joseph Milici

215.847.4642 | Philadelphia, PA 19114 | joey.milici19@gmail.com | Confidential Level Security Clearance
[linkedin.com/in/joseph-milici/](https://www.linkedin.com/in/joseph-milici/) | <https://josephmilici.com/>

EDUCATION AND CERTIFICATIONS

Duquesne University - Pittsburgh, PA

August 2019 - May 2023

Bachelor of Science in Computer Science, Minor in Mathematics

- Cumulative GPA: **3.52**; graduated **cum laude**

On-Campus Leadership & Involvement:

- Duquesne's Chapter of the Association for Computing Machinery, Vice President
- Delta Chi Fraternity, Duquesne Chapter

August 2021 - May 2023

October 2020 - May 2023

Certifications:

- AWS Cloud Practitioner

TECHNICAL SKILLS

Programming Languages: Java, Python, C#, C/C++, JavaScript, HTML, CSS, SQL, and PHP

Tools & Technologies: Git, AWS, Jenkins, VS Code, Idea, Eclipse, Maven, PowerShell, Bash, JUnit, Jest, Selenium, and Vim

RELEVANT PROFESSIONAL EXPERIENCE

JPMorgan Chase & Co. - Wilmington, DE

April 2024 - Present

Software Engineer

- Contribute to the Cloud Data Migration Service (CDMS) project, facilitating data migration from Hadoop servers to AWS using Python and object-oriented programming principles.
- Implement AWS services such as S3, Glue tables/jobs, Athena, DynamoDB, and Lambda for efficient data management and storage solutions.
- Participate in Scrum methodology with a large development team, utilizing Jira for task management and tracking.
- Employ CI/CD tools like Jenkins, Jet, and ServiceNow to streamline development and deployment processes.
- Collaborate on data extraction and transformation processes for parquet, CSV, and gz files from Hadoop to AWS.
- Ensure data integrity and validation through comprehensive unit testing and automation frameworks.

Mackee Incorporated - Philadelphia, PA

June 2023 - April 2024

Junior Financial Analyst

- Developed scripts for senior analysts in Java and VBA to speed up data analysis along with database maintenance.
- Collaborated with a software development team, actively participating in Agile methodology and Scrum meetings.
- Automated contract reconciliation procedures through the creation of macros, contributing to process efficiency.

Duquesne Department of Math/CS - Pittsburgh, PA

August 2022 - May 2023

Tutor

- Guided and taught 30+ students, one-on-one, in various computer science and math-related courses.
- Designed and implemented efficient learning solutions, fostering clean and maintainable understanding of course materials.
- Demonstrated exceptional written and verbal communication skills, simplifying complex technical concepts for better comprehension.

RELEVANT TECHNICAL PROJECTS

Blackjack with Monte Carlo Simulation - Java - Pittsburgh, PA

February 2023 - June 2023

- Created a fully functional blackjack program supporting any number of players and hands per player.
- Solved the game using a Monte Carlo simulation to generate a highly accurate table for various outcomes.
- Implemented different AI players, including Monte Carlo Player, Book Player, and Random Player.
- Established comprehensive unit testing using JUnit for robust code validation.

CVE-2022-0847-Exploit-Implementation - C - Pittsburgh, PA

September 2022 - December 2022

- Developed a Proof of Concept demonstrating arbitrary code execution on a foreign machine through the exploitation of CVE-2022-0847, 'Dirty Pipe Exploit,' leveraging a Linux kernel vulnerability to pop a reverse bash shell.
- Utilized a seemingly innocent leap year program as a trojan, enabling execution of commands as 'su' without a password prompt.
- Engineered background processes to hold connections after program termination, ensuring persistent access.