

# SABAH HAGOS

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Portfolio: <https://sabahhagos.github.io/>

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## EDUCATION

**Fordham University** **September 2021 - May 2025**  
**Bachelor of Science in Computer Science** *New York, NY*  
**Minors: Cybersecurity and Anthropology**  
**Relevant Coursework:** Database Systems, Data Structures, Computer Algorithms, Operating Systems, Data Mining, Theory of Computation, Cybersecurity and Application, Data Communication & Networks, Computer Organization, Secure Cyber Networks, Forensic Computing, Discrete Structures, Info and Data Management, Ethics in Tech: Race, Sex, and Science, Cyberspace and Ethics

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## SKILLS AND CERTIFICATIONS

**Programming Languages:** C++, Python, Java, JavaScript, SQL, PHP  
**Frameworks/Environments:** Flask, AWS, MySQL, Wireshark, Pandas, Jupyter Notebook, Excel, Linux, Node, Google Cloud Platform, Git, Snort, Splunk

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## EXPERIENCE

- IT Business Analyst Intern | Marsh McLennan** **June 2024 - Jan 2025**
- Assisted with User Acceptance Testing for Marsh McLennan's new CRM system and increased bug detection by 85% by analyzing and documenting issues.
  - Collaborated closely with the development team using agile methodologies (Daily scrum meetings, Kanban, Jira).
- IT Security Intern | Fordham University** **January 2024 - May 2024**
- Created and maintained IT Security and Assurance website, integrating security threat monitoring features, such as "Tip of the Day," boosting user engagement by 88%.
  - Conducted compliance monitoring and investigations, recording and tracking incidents, including copyright violations and email threats, ensuring adherence to university-accepted security protocols.
  - Assisted in performing forensics analysis, vulnerability assessments, and penetration testing for networks, servers, and applications, enhancing security posture and reducing risks by 85%.

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## PERSONAL PROJECTS

- Audio Beat Tracking with Recurrent Neural Networks | Python, Keras, Scikit-Learn** **January 2025**
- Developed an audio beat tracking system leveraging RNNs and dynamic Bayesian networks to detect similar rhythmic patterns in music signals. Achieved an F-measure of 92% by combining RNNs and Dynamic Bayesian Networks for temporal pattern recognition and phase transition modeling.
  - Validated the system on diverse music datasets, demonstrating improved accuracy across electronic, classical, and jazz genres.
- AI-powered Quishing Detection System | Python, Pandas, Scikit-learn** **December 2024**
- Accomplished a 93.6% accuracy rate in detecting malicious URLs by designing and evaluating machine learning models (Random Forest, XGBoost, LightGBM, and Gaussian Naive Bayes) using a dataset of over 195,000 QR code-decoded URLs.
- BeatSwitch Spotify Web App | Node.js, React, RESTful API** **October 2024**
- Web application for DJs to find songs based on tempo and view track features like popularity and musical key.
  - Built using Node.js with Express for authentication and RESTful APIs, React, and the Spotify API

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## EXTRACURRICULAR ACTIVITIES

- Computer Science Society - E-Board Member** **August 2021 - Present**
- Actively engaging in various society initiatives, including organizing and participating in coding workshops, guest lectures, and collaborative projects.
- Coding Club - Vice President** **October 2022 - Present**
- Organizing and leading weekly club meetings and networking events, including hackathons, creating agendas, coordinating with guest speakers, managing logistics, and enhancing educational and career opportunities for members.