Mohamed Moussa

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Education _____

Rutgers University - New Brunswick   *GPA: 3.937*

B.S Computer Science, B.S Applied Physics   *Sept. 2017 – August 2021*

- **Relevant Coursework**: Data Structures and Algorithms, Computer Architecture, Software Methodology, Databases, Systems Programming, Software Engineering, Design & Analysis of Algorithms. **In progress:** Introduction to Artificial Intelligence
- **Publication:** Completed Amide bond based Research Project and Publication: Rahman, M.; Moussa, M.; Li, G.; Szostak, M. "Metal-Free Transamidation of Secondary Amides by N−C Cleavage," J. Org. Chem. **2019**, 84, DOI
- **Dean's List:** Awarded all semesters
- **Scholarships:** Rutgers James Dickson Carr Scholar (1 of 3 students selected, minimum GPA 3.5), and Rutgers Chancellor (1 of 6 students selected minimum GPA 3.5)

Experience _____

Rutgers University Career Services

Learning Assistant for Intro to CS, Data Structures and Physics   *Jan. 2018 – Present*

- Challenged 50 students to discuss efficient solutions to problems using stacks, queues, trees, hashmaps, and graphs in **Java**
- Facilitated recitations of 40 students working in small groups to effectively cooperate and conduct physics experiments

Rutgers Electrical and Computer Engineering   *New Brunswick, New Jersey*

Learning Assistant for Modern Instrumentation   *Sept.2019- May 2020*

- Educated students on building circuits involving transistors, logic gates, diodes, along with other computer hardware components.
- Troubleshot simple circuits using breadboards and identified defective electric components.

Rutgers Department of Chemistry   *New Brunswick, New Jersey*

Data Science Research Assistant   *May 2019 – Sept. 2019*

- Developed command line interface tool in **Python** to store NMR results of specific compounds which were then used to calculate Linear Regression and plot in **Origin**.
- Processed percent yield for each Organic Chemistry synthesis using **Python** by querying data from **MySQL** database

*Projects*_____

E-Commerce MarketPlace

- Developed an application that simplifies e-commerce for college students, utilizing **MVC** design patterns and **Scrum** Framework.
- Stored user information in **MySQL** database hosted by **AWS RDS**, product images were stored in **AWS S2**
- Facilitated **REST API** communication between **Angular** front-end and **Spring Boot** back-end.

NikePurchase

- Engineered an interactive bot that purchases limited edition items from Nike website using webdrivers
- Scraped Websites for data utilizing **Python Selenium API** and saved user input through Standard Input.

RailwayBooking

- Developed a Railway Booking System in **JavaScript** that allows users to create accounts and reserve tickets specific trains. Deployed using **AWS EC2**.
- Utilized **MySQL** to store user data in Relational Databases hosted using Amazon **RDS**.

Skills _____

Languages	Java, C, Python, SQL, HTML, CSS, JavaScript, Lua,Assembly
Frameworks	Angular, Node.js, Spring Boot, JavaFX, JSP, Flask,Pygame, Bootstrap
Tools	AWS, Git, Linux,Origin, LoggerPro, Android Studio