# Mark Bassily

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# **EDUCATION**

# **RUTGERS UNIVERSITY**

BS IN COMPUTER SCIENCE May 2024 | New Brunswick, NJ GPA: 3.4

# COURSEWORK

Artificial Intelligence
Information and Data Management
Software Engineering
Internet Technology
Principles of Programming Languages
Software Methodology
Computer Algorithms
Systems Programming
Discrete Structures I & II
Computer Architecture
Data Structures
Introduction to Computer Science

# **SKILLS**

# Languages/Frameworks:

Java • SQL • Python • Javascript React • React Native • HTML • CSS Bootstrap • JQuery • Scala • C • C++ PostgreSQL • GraphQL • Mockito JUnit • Selenium • PyTorch

#### Technologies:

Git/Github • Docker • AWS Express • Jenkins • Jira • Postman

# Additional Skills:

Machine Learning • Web Scraping Neural Networks • Training Models Concurrency • LLM • Transformer

# CERTIFICATIONS

### Complete:

AWS Certified Developer - Associate

# In Progress:

# **EXPERIENCE**

# **CLUTCH HOLDINGS** | FULL-STACK SOFTWARE ENGINEER INTERN May 2023 - August 2023 | Remote

- Created and maintained database queries and API endpoints using PostgreSQL and Java. Created and maintained frontend pages using Scala, React, Javascript, HTML, and CSS
- Designed Unit and Integration tests to ensure a smooth deployment
- Worked with HTML and JQuery to improve legacy systems requiring a quick understanding of unfamiliar code.
- Reduced loading times of large tables by ~80% by updating API calls and paginating results.
- Developed multiple web pages to automate manual tasks, allowing non-technical users to do tasks previously done by developers.
- Successfully balanced multiple tickets concurrently allowing for minimal downtime
- Communicated with the team regularly to discuss ideas, ask for clarification, and communicate issues.
- Effectively used tools including GitHub, Jenkins, and Jira to push, deploy, and document all source code changes.

# PROJECTS | MORE HERE: HTTPS://GITHUB.COM/MARKB2575

#### Jukeboxd

Developed a social music platform using React, Express, and MariaDB, enabling users to track, rate, and review tracks, albums, and artists. Implemented a paginated search feature to ensure seamless access to over 40,000 results. Enhanced security with encrypted passwords and JWT-based authentication for user accounts. Leveraged Python to parse CSV files and generate SQL database entries for tracks, albums, and artists. Delivered a modern UI through styling with CSS and Bootstrap.

### Al Stock Predicter

Created an AI model in Python using Keras that predicts a stock's future value in 30 days. Done by analyzing and training models on S&P500 stock history retrieved by the yfinance API then predicting given a certain data window using an LSTM model.

#### Stock Scanner

Created a tool that scans through a set of tickers and assigns a rating based on criteria such as volatility, relative volume, and float through the Yahoo Finance API. It then displays these tickers sorted by rating in a GUI made with Tkinter.

# Gap Scanner

Created a tool that scans a set of tickers for price gaps from the previous day's market close to the current time through the Yahoo Finance API. It then displays these tickers sorted by Gap size in a GUI made with Tkinter. It can be used to find the largest gap-ups during the premarket.

#### till-failure

Developed a gym workout mobile application using React Native, enabling users to create custom workout plans and track workout data to monitor progress. The app recommends weights for each exercise based on historical data using a smart algorithm. It features a database of approximately 500 unique exercises, each rated for effectiveness, which can be filtered by target muscles and searched for user convenience. Includes intricately designed UI and animations for a modern look.

#### Translit Copt

Contributed to the development of a software that uses Tesseract OCR with Python to detect a foreign text from an image, and then transliterate the recognized text into an English version using a self-made library.