

Roy HOUWAYEK

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EDUCATION

Rutgers University, New Brunswick, NJ

Bachelor of Science in Computer Science and Economics, expected May 2025

GPA: 3.8

Honors: Dean's List

EXPERIENCE

2nd Place out of 465 teams - Nationwide Hackathon by *Nationwide Mutual Insurance Company* *April 2022*

- Developed "Simplify," a cross-platform mobile app in React Native that tracked user driving behaviors by utilizing regional speed limit data and rewarding safe drivers with lower insurance premiums.
- Designed education modules for current policyholders to gain incentives for learning about key safety topics, creating a gamification opportunity for home and auto safety education.
- Engineered user leaderboards and ranking systems using databases to further motivate policyholders to be safer drivers.

Software Engineering Virtual Experience - JPMorgan Chase & Co. *April 2022 – May 2022*

- Manipulated and analyzed live stock market data in Python and Typescript using JPMorgan Chase's financial analysis tools and frameworks.
 - Displayed complex financial information using Perspective, an open-source financial modeling tool.
 - Built analyzing and alerting mechanisms to help traders make informed investing decisions.
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PROJECTS

University Admissions Predictor

- Created a logistic regression model using MATLAB to predict a university applicant's chance of admission.
- Trained the model using historical reports from previous applicants and implemented regularization and feature mapping methods to accurately assess the data.

Housing Prices Simulator

- Designed and trained a regularized linear regression model in MATLAB that predicts the market price of houses with various attributes such as size and location.
- Implemented feature normalization techniques using MATLAB's built-in optimization toolbox to improve speed and performance.

Text File Compressor

- Developed a program in Java to efficiently store and access data using a lossless data compression method, based off the Huffman Coding Algorithm, saved ~40% more space.

Android Accelerometer

- Designed an Android application that tracks speed, acceleration, current location, requests user permissions, and allows for multiple degrees of precision using the Google Maps API.

Online Weather App

- Built a weather forecast website using the National Weather Service Web API that displays temperature, geolocation, and a forecast for the upcoming week.
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TECHNICAL SKILLS

Java • JavaScript • HTML • CSS • Android Studio • MATLAB • C++

COURSES

Data Structures • Discrete Mathematics • Linear Algebra • Computer Architecture • Microeconomics • Macroeconomics
