

David Wallach

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EDUCATION

Northwestern University, Evanston, IL
Bachelor of Arts in **Computer Science & Economics**
Cumulative GPA: 3.50 / 4.00 | Computer Science GPA: 3.74 / 4.00

Class of 2018

COURSEWORK

Courses: Artificial Intelligence Programming, Concurrent Programming in Rust, Databases, Human Computer Interaction, IoT Seminar, Machine Learning, Operating Systems, Sensor Networks

Projects:

- Helped develop a package of two executables and two libraries for multi-player, concurrent ConnectK using oData protocol to transfer data between the server and clients as well as created a GUI for the client-side executable using the GTK library. (*Rust*)
- Used Recurrent Neural Networks, Decision Trees and KNN algorithms to predict the likelihood of a potential debtor being liquid in two years time, showcasing the strengths and weaknesses of the different classifiers. (*Python*)
- Used Adafruit Feather boards to create modular sensors capable of sensing various phenomena in local environments that are able to be configured to the user preferences with just a few lines of text. (*C, Python, Arduino*)

PROFESSIONAL EXPERIENCE

Software Engineering Intern, Rocket Software Inc.

June — August 2017

IBMi, Angular 2, Node.JS

- Worked on the *IBM Cloud Storage Connector* product, adding enhancements and new features to the GUI as the team prepared for the initial release.
- Tested and debugged the FTP, Softlayer and AWS modules to ensure communication between the local and remote resources was working properly and efficiently.
- Addressed and fixed bugs promoted by the QA team as the product underwent testing as well as maintained the product post release.

iOS Mobile Development Intern, Tourism Creative Agency

July — August 2016

Swift, Objective-C, Pods

- Designed and architected a mobile application for client Village N Life, the leading hospitality company in South Africa, to complement its Leisure Club website.
- Implemented functionality to allow members to create accounts, access exclusive deals and make mobile bookings.
- Used Firebase API as the backend server to store and update rooms statuses and prices for each calendar date, current deals being offered and user information.

PERSONAL PROJECTS

Alexa-Scribe

Python, Swift, Amazon Voice Services

- Developed a programming interface to interact with AVS through a text API, bypassing the need for voice triggered communications by using text-to-speech and speech-to-text technology.
- Created a smart alarm IoT system using an iOS application I developed to set the alarm of a Raspberry Pi based on the user's calendar events for the next day as they arrived home without any user interaction.

Stocker

Python, NLTK

- Built a financial web scraper that takes a list of news sources and a list of stock tickers as input and populates a file with articles published by those sources concerning the stocks provided.
- Used the file to train a sentiment analysis classifier using a Naive Bayes algorithm in efforts to decrease the error term associated with stock trading by using public sentiment as an evaluation metric.

SKILLS

Web: Angular 2, Node.JS, TypeScript, Javascript, SCSS

Programming: Python, C, C++, Rust, Swift, SQL, IBMi

Certifications: Bloomberg Market Concepts, Advanced Excel Training