RYAN ELLIS

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EDUCATION

University of Maryland, College Park

B.S. Computer Science Minor in Statistics College Park, MD May 2020

SKILLS

Programming Languages Frameworks/Tools

Java (*Proficient*), Python (*Familiar*), HTML, CSS, Javascript, C, Ruby Git, Bootstrap, MySQL, DynamoDB, Lambda, Amazon Web Services

EXPERIENCE

Software Developer Intern

EuroDev

Almelo, Netherlands Summer 2018

- Developed data preprocessing tool written in Python using the Pandas and OpenPyXL libraries to improve efficiency of filtering and save over 200 hours per year for the marketing department.
- Lead redesign of new landing page for website, created optimization's that lead to 20% faster load time by reducing page size and implementing caching.

Backend Developer

Technica

College Park, MD April 2018 - Current

- Worked with a team of 12 people to develop an iOS/Android application that would allow users to check-in, manage schedule, and receive notifications.
- Implemented database to handle requests from the front end using DynamoDB and connected login functionality from the API gateway to the backend using Lambda functions.

DirectorDouglas, MALearn to Code_Oct. 2015 - May 2016

- Created a 10-week after school program that used the Scratch programming language to provide middle school students with an introduction to computer science.
- Modified lesson plans from Harvard's CS50 course to develop a class structure that was more suitable for a middle school audience and created programming projects to reinforce subjects taught in class.

PROJECTS

Snap to Run Java, Python

devpost.com/software/snap-to-run

Winner of the Best Use of AWS Prize Dragonhacks 2018

- Android application that enables users to take a picture of hand written Python code and be sent a text message of the compiled result.
- The front-end of the application was created in Android Studio using the Android SDK and implements the Google Vision API to perform optical character recognition (OCR) on the image.
- The back-end server is written in Python and hosted on an EC2 server with AWS where it listens for HTTP requests from the android app using a RESTful API. The server also implements the Twilio API to text the results of the Python code back to the user after it has been converted from plain text.

Reddit Chess Bot Python, MySQL

github.com/ryan-ellis/Reddit-Chess-Bot

- Reddit bot that can be summoned with a text command in any comment thread, takes a specific chess position as an input and attempts to return a professional chess game that features the same position.
- Implemented using the Python Reddit API Wrapper to view and respond to comments and the Beautiful Soup 4 package to perform web scraping on a chess database when searching for positions.
- The bot is hosted on an EC2 server with AWS and uses a MySQL database to store information regarding the users it interacts with.

EXTRACURRICULARS

Clubs/Activities Astrophotography, Chess Club (*Treasurer*), Terrapin Hackers (*Event Organizer*) Intramural Basketball, Golf Club