

Danish Aarsalan

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EDUCATION

University of Illinois at Urbana-Champaign

Bachelor of Science in Statistics and Computer Science

Bachelor of Art in Linguistics

Expected graduation: May 2021

GPA: 3.43/4.00

Relevant coursework: Data Structures, Data Visualization, Discrete Structures, Computer Architecture, System Programming, Numerical Methods, Algorithms and Models of Computation, Database Systems, Text Information Systems

WORK EXPERIENCE

UnitedHealth Group (Optum) – Eden Prairie, MN

June 2019 – August 2019

Software Engineering Intern

- Automated the clone process in ServiceNow in a non-disruptive and data-preservative manner; process now requires little supervision and eliminates manual tasks previously attached to it.
- Optimized update set grouping by algorithmically batching parent sets with children sets to reduce conflicts between data loads
- Allowed for the company to make weekly clones which helps keep the codebase clean and reduces code debt
- Developed a Zero Trust authentication method for ServiceNow as a side project

UnitedHealth Group (OptumRx) – Schaumburg, IL

June 2018 – August 2018

Software Engineering Intern

- Created a portal for developers to generate a front-end for users and deploy automation scripts using Jenkins
- Complete end-to-end implementation for scalability, network security, performance and user data analysis
- Removed company's dependence on replicable manual processes, improving efficiency and decreasing overall cost
- Utilized Agile methodology for project planning and management

ForNoJo LLC – Champaign, IL

August 2017 – December 2017

API Design and Integration Intern

- Responsible for designing API structure for ongoing project and producing a swagger.io layout which allowed for API calls to be used for any product
- Worked on projects that included aspects of sound manipulation, augmented reality maps, and socket clusters

Interpreter Tap – Chicago, IL

May 2017 – August 2017

Mobile Development Intern

- Responsible for developing an Android frontend interface for the Interpreter Tap infrastructure
- Designed an Android app which allows for the user to search and match with interpreters for specific languages as set up by the server
- Focused on accessibility features and ease of use for the user

PROJECTS AND AWARDS

IPD – Optum Hackathon 2018

July 2018

3rd Place Award

- Constructed real-time visualization and analysis dashboards for patients and doctors given IoT data stored in a Hive SQL database
- Designed with focus on accuracy, efficiency and ease of use for both patients and doctors
- Developed with a Python/CGI backend and React frontend

Number Recognizer – Personal Project

January 2018

- Developed an image recognition tool using python's numpy, matplotlib and PIL libraries
- Implemented aspects of machine learning, in the form of pattern recognition, to teach the program what text looks like
- Built with the purpose of taking an image input of drawn numbers and outputting the number the program has recognized

Safe Shepard – Pyghacks 2017

September 2017

2nd Place Overall and Wolfram Alpha Sponsor Award

- Developed an Android app that finds the safest and shortest route on Google Maps in the Champaign-Urbana area
- Used Mathematica as backend; probability density function to map crime in the given area, then called for multiple routes using Google Maps API which were then evaluated individually for 'danger' values, outputting the optimal route
- Designed an algorithm for real time update of routes as crimes are reported in the API callback

DontFowl.me – HackIllinois 2017

February 2017

Google's Choice Award

- Created a new NLP model which is more consistent and more reliable than BoW or n-gram
- Programmed with Go by using a lexical feature approach on dependence trees and relating it to every part of speech tag of the text
- Presented the model with a google chrome extension which detected sexist language within a composed Gmail

SKILLS & INTERESTS

Development Tools: Android Studio, Xcode, Spring/Maven/Gradle/Ant, Git, SVN, MATLAB, JSON/XML, Angular/React, SQL/MongoDB

Languages: Python, Java, Javascript, R, Go, C++, Swift, HTML/CSS, Shell, Mathematica, Verilog, LaTeX

Interests: Tennis, Basketball, Hip-Hop Music, Video Games, *Rick and Morty*, *Game of Thrones*, *Sherlock*, *Westworld*