# Mazen Alotaibi

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Oregon State University College of Elect. Eng. & Comp. Sci.

Corvallis, OR (September, 2015 - June, 2019)

B.S. in Computer Science Applied in Artificial Intelligence, with Minor in Actuarial Science (GPA: 3.69/4.0).

Relevant Courses: Objected-Oriented Programming, Data Structures, Analysis of Algorithms, Databases, Computer Architecture and Assembly Language, Digital Logic Design, Theory of Computation, Computer Networks, Operating Systems, Artificial Intelligence, Software Engineering, Usability Engineering, Parallel Programming, Graph Theory, Machine Learning and Data Mining, Intelligent Robots, Programming Language Fundamentals, Discrete Mathematics, Linear Algebra, Probability, Statistics for Engineers, Numerical Analysis, Mathematical Statistics, and Applied Stochastic Models.

EXPERIENCE

### Computational Data Scientist

Corvallis, OR (October, 2019 - July, 2020)

Center for Genome Research and Bio-computing

## Undergraduate Lead GPU Computational Researcher

Corvallis, OR (October, 2018 - June, 2019)

Center for Genome Research and Bio-computing

- Worked on Tech Data AI Demo which featured in the IBMThink2019 Conference.
- Contributed to the development of multiple Deep Learning related projects, including Owl Sounds Classification, Plankton Classification, and Seeds Classification.
- Assisted fellow undergraduates in understanding the concepts and implementation of machine learning and deep learning systems.

## Technical Skills (Proficient, Familiar)

Data Analysis: NumPy, OpenCV, PyTorch, TensorFlow, scikit-learn, and R.

Web Development: JavaScript, jQuery, PHP, Node.js, React.js, Flask, and NGINX.

Parallel Programming: CUDA, OpenGL, and OpenCL.

Programming Languages: C, C++, Python, Bash, MATLAB, and Java.

Tools: Git, MySQL, NoSQL, LATEX, Docker, and ROS.

Languages: Arabic (Native) and English (Professional Proficiency).

Projects

## Pedestrian Tracking and Privacy Preservation (Senior Design Project)

October, 2018 - June, 2019

https://github.com/PavementPrometheus/Street-Watch

- Developed a computer vision system that detects pedestrians' faces to obfuscate them in real-time. Then applies a tracking system to understand pedestrian and traffic behavior to increase the safety of the traffic for the City of Portland.
- Developed the detection system using OpenCV and PyTorch, the traffic system using OpenCV and Keras/TensorFlow, and the web API and application using Flask, Node.is, and MongoDB.

**Exploring Robot** November, 2018

https://github.com/madebymaze/exploring-robot

- Designed an exploration package utilizing the **gmapping** and **nav bundle** packages to allow a simulated robot to explore an unknown environment using **Python** and **ROS**.
- Designed an algorithm that generates waypoints to be followed by the robot, and each waypoint is weighted based on Convolutional Filter with some weighted conditions.

Image Captioning

July, 2018 - August, 2018

https://github.com/madebymaze/image-captioning

- Built a Convolutional Neural Network-Recurrent Neural Network (CNN-RNN) model to automatically generate captions from images using NumPy, OpenCV, and PyTorch.
- Trained the Encoder [CNN] for feature extracting and trained the Decoder [Long Short-Term Memory (LSTM) cells in RNN] to generate captions.

## Extracurricular Activities

### IBMThink2019 (Conference)

San Francisco, CA (Feburary, 2019)

Presenter at Tech Data Booth

- Invited to IBM Conference by Tech Data to present Tech Data AI Demo to increase sales.
- Connected with more than 100 potential clients who are interested in using the demo to increase their sales in different regions, such as Brazil, the United Kingdom, and Japan.

### OSU ML/AI Club

Corvallis, OR (May, 2017 - June, 2019)

Vice-President

- Responsibilities are to present the latest literature into AI, ML, DL, and CV areas biweekly, host learning sessions to solve Kaggle competitions for new learners.
- Worked on building a Self-Driving RC Car, Kaggle Competitions, and a Breast Cancer project with the group members.