

# Zehni Khairullah

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## Profile

Entrepreneurial team player, self-motivated individual and a risk taker data scientist. I specialize in machine learning, deep learning, optimization, full stack development and I am passionate about building tools that can bring value to businesses

## Relevant Experience

- |                             |   |                                |
|-----------------------------|---|--------------------------------|
| <b>2018 (Aug – Present)</b> | <b>Data Science Intern</b>  | <b>Irdeto, The Netherlands</b> |
|                             | <ul style="list-style-type: none"><li>• Serve machine learning models on cloud platforms which provides availability of predications as an API end point</li><li>• Train machine learning models on cloud platforms in a distributive manner that resulted in acceleration of training time and up to date models availability</li><li>• Define pipelines that links between R&amp;D and management</li></ul>   |                                |
| <b>2017 (June – Aug)</b>    | <b>Business Analyst Intern</b>  | <b>Baaz, Inc., Qatar</b>       |
|                             | <ul style="list-style-type: none"><li>• Captured business requirements in the form of epics, features and user stories, and made sure the acceptance criteria for the user stories are clear</li><li>• Acted as a liaison on day to day basis with the product owner, user experience specialist and development team</li><li>• Collaborated with the testing team &amp; insured requirements were implemented as proposed</li><li>• Prepared and reviewed monthly sprints with the scrum master &amp; clarified all user stories to be implemented</li></ul> |                                |

## Education

**Sept 2017 – Present**

### **Leiden University**

*MSc Computer Science, Data Science Specialization*

**Key courses:** Advances in Data Mining, Multi-objective Optimization, Evolutionary Algorithms, Neural Networks, Linear Models & Generalized Linear Models, Information Retrieval & Text Analytics and Multivariate Analysis

**Sept 2012 – May 2016**

### **Carnegie Mellon University**

*BSc Information Systems with University Honors (Cumulative GPA 3.53/4.0)*

- Senior Leadership Award

**Key courses:** Web Application Development, Business Technology Consulting, Regression Analysis, Decision Making Analysis, Organizational Behaviour, International Management, Cross Culture Business Communication and Digital Marketing

## Technical Skills

### **Programming Languages:**

Python, R, Matlab, Java, HTML5, CSS3, Javascript, jQuery

### **Frameworks & Databases:**

Tensorflow, Keras, Kubernetes, Kubeflow, Django, PostgreSQL, MySQL, MonetDB, MongoDB

### **Operating Systems & Platforms:**

MacOS, Linux, AWS, MS Azure, Google Cloud, Grafana, Prometheus

## Selected Projects

May 2018	<b>Denoising Dirty Documents</b>	<b>Neural Networks</b>
	<p>The goal of this Kaggle challenge was to take some scanned documents that are dirty, apply a machine learning makeover and make them readable enough to prepare your old novel for e-book conversion. The noise included coffee stains, faded sun spots, dog-eared pages and/or wrinkles. To solve this problem, we used Convolutional Autoencoders and experimented with different number of layers, kernel sizes and hyperparameters. The project was implemented in Python using Keras.</p>	
Dec 2017	<b>Optimizing Optical Layers Thickness</b>	<b>Evolutionary Algorithms</b>
	<p>The objective was to find the optimal thickness of 30 optical layers that filters out some certain wavelength using an Evolution Strategy. We tested the evolution strategy over 30 fixed layers and a fixed evaluation budget of 30,000 and the results were averaged over 20 runs for each method used. The search space used for each layer thickness was between 0 and 10,000 inclusive of real numbers. The project was implemented in Matlab.</p>	
April 2016	<b>Front Desk Assistants Optimization at HBKU</b>	<b>Decision Analysis &amp; Support Systems</b>
	<p>Part of our Decision Analysis &amp; Support Systems course, we aimed to develop a decision support system to help the Front Desk Managers decide on the optimal number of Front Desk Assistants they should hire for one semester at Hamad Bin Khalifa University (HBKU) Residence Halls. This is to cover the front desk hours without any staff shortage and minimizing the cost of hiring and overhead (food, benefits, meetings, etc.). Moreover, our secondary objectives are to improve the FDA team's satisfaction and create decision analysis model that is user-friendly and flexible.</p>	
April 2016	<b>Qatar Airways Meals Wastage</b>	<b>Business Technology Consulting</b>
	<p>Part of our Technology Consulting course, my team and I had the opportunity of building a simulation model that helps to reduce the number of meals wasted on flights operated by Qatar Airways. The project involved meeting with both the IT and catering team, analyzing business processes and building a simulation by fitting different distributions based on historical data and accounting for different scenarios. The final output provided an approximate number of meals needed to be loaded by choice and category and minimize wastage.</p>	
2016 (Feb – April)	<b>GE Power - Optimizing Energy Consumption</b>	<b>Software Development Project</b>
	<p>General Electric has a factory in Dammam (GEMTEC) that has high-energy consumption (mainly electrical) and costs. Our team conducted market analysis research and on-going meetings with GE Power in Dubai and GEMTEC staff in Saudi Arabia. Our final recommendation included a mathematical model to optimize the consumption at the factory based on data analysis of historical data and a long-term recommendation based on graph theory.</p>	
<b>Additional</b>		
<b>Languages</b>	Arabic (native), English (fluent), Dutch (intermediate)	
<b>Interests</b>	Data science, neural networks, operation research, machine learning, NLP, multi-objective optimization	