



# Nguyen Tat Hoa

## Data Scientist

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## EDUCATION

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Aug 2013 - Feb 2018 **Hanoi University of Science and Technology**  
Major: Computer Science

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## WORK EXPERIENCE

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Feb 2018 - Present

**ML-Bigdata Engineering**

- Lotus Notification Service: A recommend system and use the spring boot framework, kafka, aerospike, hbase, ... to push notifications that are most relevant to the user.

**Business Intelligence:**

- Analysis and prediction of Lotus user threshold
  - + Based on interaction history: click, view, like, share, .. to predict the tolerance threshold for the number of notifications and the rate of displaying other users' posts on the feed.
- Search Engine:
  - + Use Elasticsearch's vocabulary analyzer to index ecommerce site's product information.
  - + Build search engines, suggest products from a dataset that has been stored in elasticsearch

**Recommend System:**

- Using sk-learning framework, building tf-idf online to propose a system that recommends top emails suitable for campaign.
- Build a news classification service using SVM model.

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Jun 2017 - Feb 2018

**Machine Learning Researcher**

- Using YOLO framework, build a model to extract where the hand appears in the image based on collected hand data.
- A model to detect and extract container truck numbers.

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Dec 2016 - Jun 2017

**Bigdata**

Use frameworks to perform statistical problems: Hadoop Distributed File System, Spark, Pandas

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## SKILLS

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**Programming language**

- Python, Java (Java core, Spring boot)
- Javascript

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**Technology**

- Elasticsearch
- Kafka, Redis, Hbase, Aerospike

- SQL, Mongo

## IDE and Editor

- Pycharm, IntelliJ, Data grid  
- Sublime text 3, Visual Studio Code,

## INTERESTS

I like watching movies, listening to music and playing sports like soccer, badminton, ...

## PROJECTS

### Lotus social

(May 2019 - Present)

<b>Customer</b>	VCCORP
<b>Description</b>	- Push personalized notifications to Lotus user based on interaction history and interests. Optimize between efficiency and annoyance.
<b>Team size</b>	3
<b>My position</b>	Developer
<b>My responsibilities</b>	<ul style="list-style-type: none"><li>- Analysis and design</li><li>- Development</li><li>- Review code</li><li>- Optimize code</li><li>- Bug Fixing</li></ul>
<b>Technologies used</b>	<ul style="list-style-type: none"><li>- Spring boot, Python</li><li>- Firebase, HBase, Kafka, Aerospike,...</li><li>- Sk-learn, SVM model</li></ul>

### Backend e-commerce website

(May 2018 - Feb 2019)

<b>Customer</b>	<a href="https://gaihekitosou-hotline.com/">https://gaihekitosou-hotline.com/</a>
<b>Description</b>	- A service store and send information via email, sms to users in need.
<b>Team size</b>	2
<b>My position</b>	Developer Backend
<b>My responsibilities</b>	<ul style="list-style-type: none"><li>- Analysis and design</li><li>- Development</li><li>- Review code</li><li>- Optimize code</li><li>- Bug Fixing</li></ul>
<b>Technologies used</b>	<ul style="list-style-type: none"><li>- Spring boot</li><li>- AWS (rds, ses, sns, hosting,...)</li></ul>

### News distribution

(May 2018 - May 2019)

<b>Customer</b>	Newspaper Websites (VCCORP)
<b>Description</b>	- Real-time analysis and evaluation, selecting good articles to display on home pages of website: nld.com.cn, vtv.vn, danviet.com, ...
<b>Team size</b>	1
<b>My position</b>	Developer
<b>My responsibilities</b>	<ul style="list-style-type: none"><li>- Analysis and design</li><li>- Development</li><li>- Review code</li></ul>

	<ul style="list-style-type: none"> <li>- Optimize code</li> <li>- Bug Fixing</li> </ul>
<b>Technologies used</b>	<ul style="list-style-type: none"> <li>- Python</li> <li>- Mysql, Redis</li> </ul>

## CTR prediction

(Feb 2018 - May 2018)

<b>Customer</b>	VCCORP
<b>Description</b>	- Based on interaction history on zones and banners make predictions about CTR
<b>Team size</b>	2
<b>My position</b>	Developer
<b>My responsibilities</b>	<ul style="list-style-type: none"> <li>- Analysis and design</li> <li>- Development</li> <li>- Review code</li> <li>- Optimize code</li> <li>- Bug Fixing</li> </ul>
<b>Technologies used</b>	<ul style="list-style-type: none"> <li>- Python 3</li> <li>- sk-learn framework: Linear Regression, Random Forest</li> </ul>

## Gender Detection

(Oct 2017 - Feb 2018)

<b>Customer</b>	Graduation thesis
<b>Description</b>	- Use deep learning to extract features from images that make predictions about the user's gender (dataset using IMDB-WIKI)
<b>Team size</b>	1
<b>My position</b>	Developer
<b>My responsibilities</b>	<ul style="list-style-type: none"> <li>- Analysis and design</li> <li>- Development</li> <li>- Review code</li> <li>- Optimize code</li> <li>- Bug Fixing</li> </ul>
<b>Technologies used</b>	<ul style="list-style-type: none"> <li>- Python3</li> <li>- Densely Connected Convolutional Networks (DenseNet), Tensorflow 1.0, OpenCV</li> </ul>