



# Filip Hrenić

SOFTWARE DEVELOPER · PRODUCTION ENGINEER

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## Experience

### Facebook

PRODUCTION ENGINEER

London, United Kingdom

Nov 2018 - NOW

### Twitter

HADOOP INFRASTRUCTURE INTERN

San Francisco, California

Jun 2018 - Aug 2018

- Hadoop SRE team, supporting all teams using the data infrastructure
- Worked on detecting bad hadoop data nodes and automating remediations
- Developed a more efficient way to extract metrics from log files
- Set up monitoring and alerting for newly exposed metrics
- Implemented a highly configurable and easy to use health check framework in Python. Runs periodically to check the condition of a node. Deployed to thousands of data nodes
- Technologies: Python, Puppet, git, Bash tools & scripting

### Facebook

PRODUCTION ENGINEER INTERN

London, United Kingdom

Sep 2017 - Nov 2017

- Windows Developer Infrastructure team, supporting Oculus team
- Worked on a system which would enable taking snapshots of virtual machines used for ephemeral tasks, like running tests. In that way we could speed up the process of cleaning the VM and returning it to a healthy state, instead of provisioning it all over again
- Technologies: Python, BTRFS, QEMU, Hack, internal tools

### Sofascore

RESEARCH AND DEVELOPMENT ENGINEER

Zagreb, Croatia

Dec 2015 - Sep 2017

- Developed a machine learning model for classifying users which enabled admins and moderators to monitor chat rooms with many "bad" users (swearing, posting fake scores, ...)
- Developed a system which would detect others scraping the website
- Created and developed the initial infrastructure for aggregation and querying of football player statistics
- Technologies: PHP, Python, PostgreSQL, Docker, Vagrant, git

### University of Zagreb, Faculty of Electrical Engineering

GRADUATE TEACHING ASSISTANT

Zagreb, Croatia

Oct 2016 - Mar 2018

- Helping other students to learn and overcome difficulties in following classes:
- 2016/2017 - Digital Logic, Software Design, Internet Security, Artificial Intelligence, Network Programming, Basics of Java Programming Language, Introduction to Knowledge Management, Distributed Big Data Processing
- 2017/2018 - Operating Systems

### University of Zagreb, Faculty of Electrical Engineering

UNDERGRADUATE TEACHING ASSISTANT

Zagreb, Croatia

Oct 2013 - Jul 2016

- Helping other students to learn and overcome difficulties in following classes:
- 2013/2014 - Mathematics 1, Digital Logic
- 2014/2015 - Mathematics 1&2, Digital Logic, Programming and Software Engineering, Algorithms and Data Structures, Electronics 1
- 2015/2016 - Mathematics 3, Probability and Statistics

### Genome Institute of Singapore

RESEARCH OFFICER

Singapore

Jul 2015 - Sep 2015

- Used a customized mathematical models for simulating intraspecies interactions in the human microbiome
- Presented scientific papers on that subject to the entire team
- Technologies: MatLab, Python

## Education

### Faculty of Electrical Engineering and Computing, University of Zagreb

MASTER'S DEGREE, TELECOMMUNICATIONS AND INFORMATIONS

Zagreb

Oct. 2016 - Sep. 2018

- Thesis: Design of the IPv4 Routing System Based On Field-Programmable Gate Arrays
- GPA: 4.70/5

## Faculty of Electrical Engineering and Computing, University of Zagreb

Zagreb

BACHELOR'S DEGREE, COMPUTER SCIENCE

Oct. 2013 - Jul. 2016

- Thesis: Detection of Inappropriate Messages in Online Chats
- GPA: 4.86/5
- Additional courses: Discrete and Continuous mathematics, Programming in Haskell, Introduction to Java Programming Language, Object Oriented Programming, Basic use of Linux Operating System, Advanced use of Linux Operating System

## Coursera

Online

STUDENT

2014 - 2016

- Algorithmic Thinking 1&2 (Rice University)
- Algorithms 1&2 (Princeton University)
- Algorithms: Design and Analysis 1 (Stanford University)
- Cryptography 1 (Stanford University)
- Game Theory (Stanford University)
- Machine Learning (Stanford University)
- Principles of Computing 1&2 (Rice University)

## Honors & Awards

### Udacity & Google

Zagreb, Croatia

ANDROID PROGRAMMER PATH SCHOLARSHIP

Jan 2017

- Google's Associate Android Developer Certification at the end of scholarship

### "Stipo Lozić-Baškarad" Foundation

Zagreb, Croatia

SCOLARSHIP FOR TALENTED STUDENTS

Oct 2015 - Oct 2018

### Faculty of Electrical Engineering and Computing

Zagreb, Croatia

"JOSIP LONČAR" AWARD

Nov 2016

- Award for best students in class, top 1%
- Academic year 2015/2016 (third year of study)

### Faculty of Electrical Engineering and Computing

Zagreb, Croatia

"JOSIP LONČAR" AWARD

Nov 2015

- Award for best students in class, top 1%
- Academic year 2014/2015 (second year of study)

### A\*STAR

Singapore, Singapore

SINGAPORE INTERNATIONAL PRE-GRADUATE AWARD (SIPGA)

Jul 2015

- "... short-term research attachments for international students ..."

### Faculty of Electrical Engineering and Computing

Zagreb, Croatia

"JOSIP LONČAR" AWARD

Nov 2014

- Award for best students in class, top 1%
- Academic year 2013/2014 (first year of study)

### Rotary International

Varaždin, Croatia

HIGH SCHOOL EXCELLENCE AWARD

May, 2013

- Award for best high school students in class

## Skills

### Programming languages

Python, Java, C, PHP, Bash

### Technologies

git, mercurial, MySQL, PostgreSQL, Hadoop, Vagrant, Docker, Spring, Symfony, Doctrine

### Languages

English B2