Filip **Hrenić**

SOFTWARE DEVELOPER · PRODUCTION ENGINEER

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Exp**erience**

Facebook   *London, United Kingdom*

PRODUCTION ENGINEER - VULNERABILITY MANAGEMENT   *Nov 2018 - NOW*

- building distributed systems architecture to discover and manage vulnerabilities in all of Facebook infrastructure
- helping build "Vulnerability Management-as-a-Service" - self serviced vulnerability discovery, monitoring and alerting
- working with external partners (companies) on integrating multiple vulnerability providers into our system to broaden coverage and increase discovery speed
- cross functional work with numerous other teams to help them surface vulnerabilities in their libraries/repositories/services/hosts and helping them remediate
- one of the core maintainers of Facebook's opensource tools and libraries for managing vulnerability data (nvdtools)
- interviewer at Facebook; presenting at internal "conferences"
- helping new team members with onboarding - finding tasks and projects, explaining how the system works, etc.

Twitter   *San Francisco, California*

HADOOP INFRASTRUCTURE INTERN   *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   *London, United Kingdom*

PRODUCTION ENGINEER INTERN   *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   *Zagreb, Croatia*

RESEARCH AND DEVELOPMENT ENGINEER   *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   *Zagreb, Croatia*

GRADUATE TEACHING ASSISTANT   *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   *Zagreb, Croatia*

UNDERGRADUATE TEACHING ASSISTANT   *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   *Singapore*

RESEARCH OFFICER   *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 *Zagreb*

MASTER'S DEGREE, TELECOMMUNICATIONS AND INFORMATIONS *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