

# Jacob Farkas

SOFTWARE DEVELOPER

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## Summary

Current Software Architect at start-up company Omnious. 7+ years experience specializing in the backend development, infrastructure automation, and computer hacking/security. Super nerd who loves Vim, Linux and OS X and enjoys to customize all of the development environment. Interested in devising a better problem-solving method for challenging tasks, and learning new technologies and tools if the need arises.

## Work Experience

### Omnious. Co., Ltd.

Seoul, S.Korea

SOFTWARE ARCHITECT

Jun. 2017 - PRESENT

- Provisioned an easily managable hybrid infrastructure(Amazon AWS + On-premise) utilizing IaC(Infrastructure as Code) tools like Ansible, Packer and Terraform.
- Built fully automated CI/CD pipelines on CircleCI for containerized applications using Docker, AWS ECR and Rancher.
- Designed an overall service architecture and pipelines of the Machine Learning based Fashion Tagging API SaaS product with the micro-services architecture.
- Implemented several API microservices in Node.js Koa and in the serverless AWS Lambda functions.
- Deployed a centralized logging environment(ELK, Filebeat, CloudWatch, S3) which gather log data from docker containers and AWS resources.
- Deployed a centralized monitoring environment(Grafana, InfluxDB, CollectD) which gather system metrics as well as docker run-time metrics.

### PLAT Corp.

Seoul, S.Korea

CO-FOUNDER & SOFTWARE ENGINEER

Jan. 2016 - Jun. 2017

- Implemented RESTful API server for car rental booking application(CARPLAT in Google Play).
- Built and deployed overall service infrastructure utilizing Docker container, CircleCI, and several AWS stack(Including EC2, ECS, Route 53, S3, CloudFront, RDS, ElastiCache, IAM), focusing on high-availability, fault tolerance, and auto-scaling.
- Developed an easy-to-use Payment module which connects to major PG(Payment Gateway) companies in Korea.

### R.O.K Cyber Command, MND

Seoul, S.Korea

SOFTWARE ENGINEER & SECURITY RESEARCHER (COMPULSORY MILITARY SERVICE)

Aug. 2014 - Apr. 2016

- Lead engineer on agent-less backtracking system that can discover client device's fingerprint(including public and private IP) independently of the Proxy, VPN and NAT.
- Implemented a distributed web stress test tool with high anonymity.
- Implemented a military cooperation system which is web based real time messenger in Scala on Lift.

### NEXON

Seoul, S.Korea & LA, U.S.A

GAME DEVELOPER INTERN AT GLOBAL INTERNSHIP PROGRAM

Jan. 2013 - Feb. 2013

- Developed in Cocos2d-x an action puzzle game(Dragon Buster) targeting U.S. market.
- Implemented API server which is communicating with game client and In-App Store, along with two other team members who wrote the game logic and designed game graphics.
- Won the 2nd prize in final evaluation.

### ShitOne Corp.

Seoul, S.Korea

SOFTWARE ENGINEER

Dec. 2011 - Feb. 2012

- Developed a proxy drive smartphone application which connects proxy driver and customer.
- Implemented overall Android application logic and wrote API server for community service, along with lead engineer who designed bidding protocol on raw socket and implemented API server for bidding.

### SAMSUNG Electronics

S.Korea

FREELANCE PENETRATION TESTER

Sep. 2013, Mar. 2011 - Oct. 2011

- Conducted penetration testing on SAMSUNG KNOX, which is solution for enterprise mobile security.
- Conducted penetration testing on SAMSUNG Smart TV.

## Honors & Awards

### INTERNATIONAL

- |      |   |                  |
|------|---|------------------|
| 2017 | <b>Finalist</b> , DEFCON 25th CTF Hacking Competition World Final | Las Vegas, U.S.A |
| 2014 | <b>Finalist</b> , DEFCON 22nd CTF Hacking Competition World Final | Las Vegas, U.S.A |
| 2013 | <b>Finalist</b> , DEFCON 21st CTF Hacking Competition World Final | Las Vegas, U.S.A |
| 2011 | <b>Finalist</b> , DEFCON 19th CTF Hacking Competition World Final | Las Vegas, U.S.A |

### DOMESTIC

2015 **3rd Place**, WITHCON Hacking Competition Final  
2017 **Silver Prize**, KISA HDCON Hacking Competition Final  
2013 **Silver Prize**, KISA HDCON Hacking Competition Final

*Seoul, S.Korea*  
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## Presentation

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### DevFest Seoul by Google Developer Group Korea

*Seoul, S.Korea*

PRESENTER FOR <HOSTING WEB APPLICATION FOR FREE UTILIZING GITHUB, NETLIFY AND CLOUDFLARE>

*Nov. 2017*

- Introduced the history of web technology and the JAM stack which is for the modern web application development.
- Introduced how to freely host the web application with high performance utilizing global CDN services.

### 6th CodeEngn (Reverse Engineering Conference)

*Seoul, S.Korea*

PRESENTER FOR <DEFCON 20TH : THE WAY TO GO TO LAS VEGAS>

*Jul. 2012*

- Introduced CTF(Capture the Flag) hacking competition and advanced techniques and strategy for CTF

## Writing

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### A Guide for Developers in Start-up

*Facebook Page*

FOUNDER & WRITER

*Jan. 2015 - PRESENT*

- Drafted daily news for developers in Korea about IT technologies, issues about start-up.

## Program Committees

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2016 **Problem Writer**, 2016 CODEGATE Hacking Competition World Final  
2013 **Organizer & Co-director**, 1st POSTECH Hackathon

*S.Korea*

*S.Korea*

## Education

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### POSTECH(Pohang University of Science and Technology)

*Pohang, S.Korea*

B.S. IN COMPUTER SCIENCE AND ENGINEERING

*Mar. 2010 - Aug. 2017*

- Got a Chun Shin-Il Scholarship which is given to promising students in CSE Dept.

## Extracurricular Activity

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### PoApper (Developers' Network of POSTECH)

*Pohang, S.Korea*

CORE MEMBER & PRESIDENT AT 2013

*Jun. 2010 - Jun. 2017*

- Reformed the society focusing on software engineering and building network on and off campus.
- Proposed various marketing and network activities to raise awareness.

### PLUS (Laboratory for UNIX Security in POSTECH)

*Pohang, S.Korea*

MEMBER

*Sep. 2010 - Oct. 2011*

- Gained expertise in hacking & security areas, especially about internal of operating system based on UNIX and several exploit techniques.
- Participated on several hacking competition and won a good award.
- Conducted periodic security checks on overall IT system as a member of POSTECH CERT.
- Conducted penetration testing commissioned by national agency and corporation.