Federico **Marra**

MSc Student in Computer Science and Engineering @ DTU · Software Engineer

Lundtoftevej 162F, Kongens Lyngby, Copenhagen, Denmark

☐ +39 328 146 0202 | ✉ s243138@dtu.dk | ⌨ federicomarra | 🔗 federico-marra-it | 🔵 live:fecrom_1

Education

DTU (Technical University of Denmark)   *Lyngby, Copenhagen, Denmark*
Master Course in Computer Science and Engineering   *September 2024 - Current*

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

UNIFI (University of Studies of Florence)   *Florence, Italy*
Bachelor Course in Computer Engineering   *September 2019 - April 2024*

- **Address:** Piazza S.Marco, 4, 50121 Firenze (Italy)
- **Website:** https://www.ing-inl.unifi.it/index.html?newlang=eng

Skills

DevOps	AWS, Docker, Kubernetes, Rancher, Vagrant, Packer, Terraform, Jenkins, CircleCI
Back-end	Koa, Express, Django, REST API
Front-end	Hugo, Redux, React, HTML5, LESS, SASS
Programming	Node.js, Python, JAVA, OCaml, LaTeX
Languages	Korean, English, Japanese

Work Experience

SNAP4 S.r.l.   *Sesto Fiorentino, Florence, Italy*
Software Engineer   *March 2024 - August 2024*

- 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.

Myself   *Florence, Italy*
Private Tutor   *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.

Extracurricular Activity

B10S (B1t 0n the Security, Underground hacker team) *S.Korea*

Core Member *Nov. 2011 - PRESENT*

- Gained expertise in penetration testing areas, especially targeted on web application and software.
- Participated on a lot of hacking competition and won a good award.
- Held several hacking competitions non-profit, just for fun.

WiseGuys (Hacking & Security research group) *S.Korea*

Member *Jun. 2012 - PRESENT*

- Gained expertise in hardware hacking areas from penetration testing on several devices including wireless router, smartphone, CCTV and set-top box.
- Trained wannabe hacker about hacking technique from basic to advanced and ethics for white hackers by hosting annual Hacking Camp.

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.

MSSA (Management Strategy Club of POSTECH) *Pohang, S.Korea*

Member *Sep. 2013 - Jun. 2017*

- Gained knowledge about several business field like Management, Strategy, Financial and marketing from group study.
- Gained expertise in business strategy areas and inisght for various industry from weekly industry analysis session.

Honors & Awards

International

2018	**Finalist**, DEFCON 26th CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2017	**Finalist**, DEFCON 25th CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2014	**Finalist**, DEFCON 22nd CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2013	**Finalist**, DEFCON 21st CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2011	**Finalist**, DEFCON 19th CTF Hacking Competition World Final	*Las Vegas, U.S.A*
2012	**6th Place**, SECUINSIDE Hacking Competition World Final	*Seoul, S.Korea*

Domestic

2015	**3rd Place**, WITHCON Hacking Competition Final	*Seoul, S.Korea*
2017	**Silver Prize**, KISA HDCON Hacking Competition Final	*Seoul, S.Korea*
2013	**Silver Prize**, KISA HDCON Hacking Competition Final	*Seoul, S.Korea*
2013	**2nd Award**, HUST Hacking Festival	*S.Korea*
2010	**3rd Award**, HUST Hacking Festival	*S.Korea*
2012	**3rd Award**, Holyshield 3rd Hacking Festival	*S.Korea*
2011	**2nd Award**, Holyshield 3rd Hacking Festival	*S.Korea*
2011	**5th Place**, PADOCON Hacking Competition Final	*Seoul, S.Korea*

Presentation

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

6th Hacking Camp - S.Korea *S.Korea*

Presenter for <Metasploit 101> *Sep. 2012*

- Introduced basic procedure for penetration testing and how to use Metasploit

Writing

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.

AhnLab *S.Korea*

UNDERGRADUATE STUDENT REPORTER *Oct. 2012 - Jul. 2013*

- Drafted reports about IT trends and Security issues on AhnLab Company magazine.

Program Committees

2016	**Problem Writer**, 2016 CODEGATE Hacking Competition World Final	*S.Korea*
2013	**Organizer & Co-director**, 1st POSTECH Hackathon	*S.Korea*
2012	**Staff**, 7th Hacking Camp	*S.Korea*
2012	**Problem Writer**, 1st Hoseo University Teenager Hacking Competition	*S.Korea*
2012	**Staff & Problem Writer**, JFF(Just for Fun) Hacking Competition	*S.Korea*