

Jonas Falck

SOFTWARE ARCHITECT · SECURITY EXPERT

Muzenplaats 4, 6525JA Nijmegen, Netherlands

☎ (+31) 655707314 | ✉ pintac1984@gmail.com | 📱 joe-nas

“Be the change that you want to see in the world.”

Education

Radboud University

Nijmegen, Netherlands

B.S. IN MEDICAL BIOLOGY

2014

- jhfkgh

Radboud University

Nijmegen, Netherlands

M.S. IN MEDICAL EPIGENOMICS

2017

- I did not finish my master degree, but completed the bulk of courses as well as the two master-internships during which I developed my bioinformatic skills.

Skills

Programming

- R/bioconductor: tidyverse, ggplot2, grid
- Python: pandas, matplotlib, scikit-learn, django, flask, jinja
- Shell scripting
- SQL
- regex
- LaTeX
- HTML

Software

- operating systems: linux, windows, macOS
- container and virtualization: docker, virtualbox, qemu
- web: nginx, gunicorn, memcached, redis
- office solutions: microsoft, google
- graphics: adobe photoshop, gimp
- elasticsearch

Data analysis, machine learning

- publication ready plots and visualizations
- supervised: linear regression, knn, decision trees
- dimensionality reduction: principal component analysis
- clustering: kmeans
- statistics: ANOVA, chi2, t-test, correlation

Languages

- English: fluent
- Dutch: fluent
- German: native

Experience

Identification and ranking of p63 binding sites putatively involved in the etiology of non-syndromic cleft lip with or without cleft palate.

Nijmegen, Netherlands

Radboud University Medical Center Nijmegen RUNMC

2017

- In silico prediction and in-vitro validation of clinically relevant transcription factor binding sites using an integrative multiomics approach.
- Development of a pipeline to integrate publicly available multi-omics data (ChIP-seq, SNPs, GWAS, linkage disequilibrium)
- I taught myself R/bioconductor because of a lack of bioinformatic expertise in the research group.

Master Internship: Comparative Genomics

Nijmegen, Netherlands

Center for Molecular and Biomolecular Informatics CMBI

Jan. 2016 - Jun. 2017

- I studied transcription factor binding and CTCF motifs in context of CTCF mediated chromatin loops.
- To conduct this study I used publicly available ChIA-PET, Hi-C and ChIP-Seq data.
- Initially this analysis was quite difficult for me because I started without a clear hypothesis. However, after some digging and thinking I made good progress resulting in a great report as well as a co-authorship.
- My biggest take away from this project probably is that persistence pays off. Furthermore, I could make use of methods I had not used before. E.g. I simulated chromatin loops given particular constraints, applied dimensionality reduction (PCA), made use of clustering and learned about different distance measures.

Extracurricular Activity

B10S (B1t On 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 insight for various industry from weekly industry analysis session.

Writing

CTCF-motif directionality controls CTCT-mediated chromatin interactions and correlates with topological domain structure

google docs

MASTER INTERNSHIP, COMPARATIVE GENOMICS, CENTER FOR MOLECULAR AND BIOMOLECULAR INFORMATICS NIJMEGEN

Jan. 2015 - PRESENT

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

Identification, ranking and testing of p63 binding sites putatively involved in the etiology of non-syndromic cleft lip with or without cleft palate

S.Korea

MASTER INTERNSHIP: HUMAN GENETICS, UNIVERSITY MEDICAL CENTER NIJMEGEN

Oct. 2012 - Jul. 2013

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