Sofia **Reis**

PHD STUDENT · SOFTWARE ENGINEER

Rua Actor Vale, nº 43A, 1900-221, Lisboa. Lisboa, Portugal

(+351) 919760820 | sofiareis1994@gmail.com | sofiaoreis.github.io | sofiaoreis | sofiaoreis

I love to learn new things and challenge myself every day. Currently, I am working with Static Analysis, Security and Software Fault Localization.

Education

Instituto Superior Técnico, University of Lisbon (IST)   *Lisbon, PT*

PHD IN COMPUTER SCIENCE AND ENGINEERING   *Feb. 2018 - Present*

Supervised by Prof. Rui Abreu Maranhão

Leiden Institute of Advanced Computer Science, Leiden University (LIACS)   *Leiden, NL*

MSC IN COMPUTER SCIENCE, ERASMUS+ PROGRAMME   *Sep. 2016 - Feb. 2017*

Databases and Data Mining, Evolutionary Algorithms, Social Network Analysis and Testing Object Oriented Software.

Faculty of Engineering, University of Porto (FEUP)   *Porto, PT*

MASTER'S DEGREE IN INFORMATICS AND COMPUTING ENGINEERING - 3 YEARS OF BSC + 2 YEARS OF MSC (15 OUT OF 20)   *Sep. 2012 - Oct. 2017*

MSc Thesis Assessing Software Vulnerabilities Using Naturally Occurring Defects (19 out of 20 - top 5%)

Professional Experience

KPMG PT   *Porto, Portugal*

ROBOTIC PROCESS AUTOMATION DEVELOPER, ARTIFICIAL INTELLIGENCE   *Sep 2017 - Mar 2018*

- Responsible for designing and delivering automations in Automation Anywhere for VAT processes in the pharmaceutical sector. Automation Anywhere Certified Developer. License AAADVC-Fv5QqG1JlD

Research Experience

Assessing Software Vulnerabilities Using Naturally Occurring Defects

MASTER THESIS DEVELOPED AT FEUP, PORTO   *Feb. 2017 - Jul. 2017*

- Static analysis tools' (SATs) study using real vulnerability test cases since mutations might differ inadvertently from actual defects. The goal was to prove that researchers can collect a substantial amount of samples from a source code hosting website and use them to identify problems in these tools. Thus, we can determine the tools that perform better and help companies choose the right ones to integrate their CI/CD pipeline.

"Diário da República eletrónico (DRE)" Project

JUNIOR RESEARCHER AT INESC-ID, LISBON   *Apr. 2018 - NOW*

- Search engine provided by the Portuguese government to consult all the information regarding the Portuguese law. This project aims to evaluate the performance of the search engine concerning its information retrieval capabilities. Funded by the INCM under the reference "353/2017 - Serviço de pesquisa em linha para o Diário da Republica eletrónico (DRE)"

Teaching Experience

2018   **Lecturer,** 1S 2018/2019, Programming Fundamentals at Instituto Superior Técnico - Taguspark, LERC/LEIC-T   *Lisbon*

Publications (3)

JOURNAL

Reis, S., & Abreu, R. (2017). A Database of Existing Vulnerabilities to Enable Controlled Testing Studies.

2017   International Journal of Secure Software Engineering (IJSSE), 8(3), 1-23. doi:10.4018/IJSSE.2017070101
Special issue invitation. Manuscript published.

Conferences

2017

Reis, S., & Abreu, R. (2017). SECBENCH: A Database of Real Security Vulnerabilities. In Proceedings of the International Workshop on Secure Software Engineering in DevOps and Agile Development, SecSE 2017 (pp. 70-85). Co-located with the 22nd European Symposium on Research in Computer Security (ESORICS 2017). `http://ceur-ws.org/Vol-1977/`

Oslo, Norway

2017

Reis, S., & Abreu, R. (2017). Using Github to Create a Dataset of Natural Occurring Vulnerabilities. In Proceedings of the 28th International Workshop on Principles of Diagnosis (DX'17). Poster Session. `https://easychair.org/publications/volume/DX17/preface`

Brescia, Italy

Communication Skills

PhD OpenDays 2018 - Instituto Superior Técnico
Lisboa, Portugal

PRESENTER FOR LEVERAGING KNOWN VULNERABILITIES TO MODERNIZE STATIC ANALYSIS TOOLS
Mar. 2018

- Poster session where I presented the main idea of my PhD and the research goals for the next year.

28th International Workshop on Principles of Diagnosis, DX'17
Brescia, Italy

PRESENTER FOR USING GITHUB TO CREATE A DATASET OF NATURAL OCCURRING VULNERABILITIES
Sep. 2017

- The abstract of *Using Github to Create a Dataset of Natural Occurring Vulnerabilities* was accepted to a poster session where I presented my research work for three hours. `sofiaoreis.github.io/docs/dx17_poster.pdf`

Semana Profissão Engenheiro (SPE)
Porto, Portugal

COURSE PROJECT PRESENTATION
Mar. 2016 - Apr. 2016

- Presentation of Database and Web Applications Laboratory final project during a week where FEUP celebrates engineers. We also presented it to a high school when they visited us to see the kind of work we do over the years. Only the best projects are invited to this event.

Skills

Programming	Python, C/C++, JAVA, JavaScript, Matlab, Ruby, TypeScript, Ruby, LaTeX, HTML5, CSS, UML, PHP
Web	Ruby on Rails, NodeJS, AJAX, jQuery, Bootstrap, AngularJS, Express
Mobile	Android, Ionic 2, Xamarin
Data Mining & Visualization	D3.js, Scikit-learn, pandas, numpy, graph-tool, gephi, weka, grafana
SQL/NOSQL DBMS	Redis, MySQL, PostgreSQL, Access, SQLite3, MonetDB
Languages	Portuguese (Native), English (Advanced), French (Basic)

Extracurricular

Students Union AEFEUP - FEUP
Porto, Portugal

IMAGE DEPARTMENT HEAD (1 YEAR) AND IMAGE DEPARTMENT COLLABORATOR (2 YEARS)
Jun. 2014 - May 2017

- In the first 2 years, I learned how to produce quality graphic material to advertise AEFEUP events. I gained strong skills in Photoshop, Adobe Illustrator, InDesign and Lightroom. In my final year, I led a group of more than ten people and helped them with their designs production.

JuniFEUP - FEUP
Porto, Portugal

FRONT-END PROGRAMMER (1.5 YEAR)
Mar. 2015 - Sep. 2016

- I solidified my notions of UX/UI and learned how to develop beautiful and intuitive web applications. I was involved in two different projects: JuniCV and JuniFEUP's website.

Administrative Experience

Make or Break (Tech Event)
Porto, Portugal

MEMBER OF THE COMMUNICATION DEPARTMENT
Jan. 2018 - Apr. 2018

- Make or Break is one of the major tech events of Porto. 3-day tech fest with workshops and an AI hackathon.
- 5th ed. (2018): I was invited to help on the event's communication, marketing and planning.

Commit Porto (Tech Event)   *Porto, Portugal*

CORE MEMBER OF THE EVENT'S ORGANIZATION, ALUMNIEI EVENT   *Sep. 2017 - NOW*

- Tech conference that brings together professionals who tackle challenges in software development with the latest technologies.
- 4th ed. (2018): Responsible for all the graphic material of the event and member of the communication/marketing department.

JobIT   *Porto, Portugal*

CORE MEMBER OF THE EVENT'S ORGANIZATION, ALUMNIEI EVENT   *Nov. 2016 - NOW*

- 3 days event where companies, such as Google, Microsoft, Farfetch, and many others are invited to present themselves to MIEIC's finalists. It is a way to break the barrier between the academic and the business world and help finalists increase their network.
- 2017 ed.: I was co-responsible for several parts of the event, such as inviting and hosting companies, designing all the graphic material (logo, posters, all the advertising material), marketing and website).
- 2018 ed: I mainly managed and supervised the event's team based on my experience in the previous year.

Collaborator/Volunteer

Now	**Volunteer,** Since Nov 2017. The majority of Coursera courses teach complex subjects, so I decided to apply as a translator to help increase the number of courses taught in other languages.	*Online*
Now	**Collaborator,** Since Nov 2016. AlumniEI-FEUP. I help the organization with communication, events and projects such as the MIEIC-FEUP students mentorship program.	*Porto, PT*
Jul 2018	**Volunteer,** 18th IEEE International Conference on Software Quality, Reliability and Security (QRS18)	*Lisbon, PT*
Jun 2018	**Volunteer,** Commit Porto 18	*Porto, PT*
Fev 2017	**Volunteer,** Talk a bit 17	*Porto, PT*