

M. Diallo

SOFTWARE ENGINEERING · RESEARCH

London

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Education

University College London (UCL)

MSc IN SOFTWARE SYSTEMS ENGINEERING

- Awarded "Vreedefonds" merit scholarship.

• Relevant Courses: Distributed Systems & Security | Information Retrieval & Data Mining | Requirements Engineering & Software Architecture

London, The United Kingdom

September 2020 - Exp. September 2021

University of Amsterdam (UVA)

BSc (WITH HONORS & CUM LAUDE) IN COMPUTER SCIENCE

- Among 3 (out of 60) students to graduate with both **Honors & Cum Laude GPA**.

• Thesis with ESI (TNO): **Towards the Scalability of Detecting & Correcting Incompatible Service Interfaces. (Grade: 8.5/10)**

• Relevant Courses: Algorithms & Datastructures | Operating Systems | Networking | Concurrency & Parallel Programming | Statistics | Compiler-Construction

• Honors Courses: Computational Logic | Search Engines | Computer Security | Innovation & Tech Management

Amsterdam, The Netherlands

September 2017 - July 2020

Nanyang Technological University (NTU)

EXCHANGE PROGRAM

- Exchange semester through the University of Amsterdam

Singapore

August 2019 - January 2020

Experience

Junior Research Assistant - Embedded Systems Innovation (ESI)

NETHERLANDS ORGANISATION FOR APPLIED SCIENTIFIC RESEARCH (TNO)

- Focused on research-based development of a tool for the synthetic generation/modification of interfaces in a domain-specific language.

• Supported the evolution of service-oriented software architectures by performing a scalability analysis of the "Dynamics" research project.

• Independently carried out software-oriented research projected under supervision.

• **Reading:** diallom.com/thesis.pdf

Amsterdam, The Netherlands

June 2020 - October 2020

Teaching Assistant - Computer Science

UNIVERSITY OF AMSTERDAM

• TA for courses: Datastructures | Operating Systems | Programming Languages | Computer Architecture

• Clarified lecture contents to students and assisted with the practicals.

• Graded assignments and provided feedback on student's performance.

Amsterdam, The Netherlands

September 2018 - June 2019

Software Developer

ASPER INTERNATIONAL TRADING

• Revitalized the company's internal structure by developing and maintaining software solutions to automatize tasks

• Digitized over ten years of papers shipping files using OCR. Saved the company a substantial amount of time looking through paper records.

• Developed an internal system to automate the registration of vehicles for export on RDW (Department of Road Transport).

Diemen, The Netherlands

August 2017 - December 2018

Skills

Spoken Languages Dutch and English (Native), French (Conversational), German (Basic)

Technologies Python, Java, JavaScript/TypeScript, C, Django, Flask, Angular, Spring Boot

Other Git, Agile, Scrum, SQL, NoSQL (MongoDB), Linux, Bash

Projects

Synthetic Petri Net Generator - github.com/Diallo/Synthetic-Interface-Generator

RESEARCH PROJECT

• Result of Bachelor's thesis: Methodology for synthetically generating Petri nets

• Tool incorporates methodology as proof-of-concept

• **Paper being submitted to workshop PNSE'21 (Petri nets and Software Engineering)**

PRESENT

Global University Listing (GLUNLI)

PERSONAL PROJECT

• GLUNLI is a web-application aimed at bringing together students with the aspirations to pursue international program. GLUNLI provides a comprehensive list of thousands of universities all over the world. The list of universities contains useful information and provides the opportunity to provide reviews.

• **Techs:** Angular (Typescript), Spring Boot (Kotlin/Java), Python, HTML, CSS

June 2020 - PRESENT

Soundhead - highmood.diallom.com

PERSONAL/UNIVERSITY PROJECT

January 2020 - July 2020

- SoundHead is an application that is a continuation of a university project. It provides analysis of user's Spotify song history. Key features are determining a user's mood based upon their song history. Furthermore using Spotify's API and basic machine learning, a recommender system attempts to provide user specific mood-based playlists, a feature not offered by Spotify. Additional features implements lacking social features for Spotify such as synchronized music listening between users, and a party mode where users of SoundHead are able to control the playback of other users.
- Project was originally conducted as part of the course "Software Engineering" at the University of Amsterdam (2019) in a group of ten.
- **Techs: Python, Django, SQL, Redis, Celery, HTML, CSS, JavaScript**

Eve Online - Launcher & Character Manager

PERSONAL PROJECT

April 2017 - May 2017

- The revised launcher for the MMORGP Eve Online provided an alternative to the game's buggy launcher and provided additional features such as easier multi-account management.
- **Techs: Python, Flask + Pywebview, HTML, CSS, JavaScript, Selenium**

Extracurricular Activities

Global Exchange Ambassador

Amsterdam, The Netherlands

UNIVERSITY OF AMSTERDAM

January 2020 - July 2020

- Part of the diversity team: promoting diversity within the exchange program.
- Conduct interviews with exchange students and provide feedback as to improve the exchange program.
- Work in a culturally diverse team with the goal of combining various differing view points of the exchange program.

Member of Education Committee

Amsterdam, The Netherlands

EDUCATION COMMITTEE - SVIA (STUDY ASSOCIATION VIA)

November 2018 - January 2020

- Organized informative lectures for students.
- Planned the association's annual international trip to FOSDEM (Software developer conference)
- Organized workshops with the intent of broadening student's knowledge within the field of information sciences.
- Organized the annual "meet the study" event for parents of information sciences students.