

# Abdullah Muhammad-Kamal

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## EDUCATION

**UNIVERSITY OF WARWICK** OCT 2017 – JUL 2021

BSc (Hons) Computer and Management Sciences

- Finalist in the annual Warwick Enactus 'Innovation Hub' Challenge
- Key modules include Databases, Algorithms, Design of Information Structures, Operating Systems and Computer Networks.

**TOWNLEY GRAMMAR SCHOOL** SEP 2015 - JUL 2017

A Levels: Mathematics (A) Chemistry (A) Biology (A)

**COOPERS SCHOOL** SEP 2010 - JUL 2015

10 GCSE grades A\*-B including Maths, English and Triple Science

## TECHNOLOGICAL PROJECTS

**PREDICTING DRUG-DISEASE LINKS WITH DISTRIBUTIVE AND SYMBOLIC METHODS (PYTHON, R AND PROLOG)** SEP2019 – PRESENT

- Collected and cleaned pharmacogenetic data from STRING, DrugBank, SIDER and DisGenNET databases.
- Developed a knowledgebase highlighting the interactions between drugs, genes and diseases using RDF and Prolog formats.
- Developed link prediction models using the PYKEEN tool on the knowledgebase.
- Improved and analysed the performance of different distributive methods provided by PYKEEN; TransE, TransR and ConvE.
- Predicted missing links using Top-Down Induction of Logical Decision Trees developed from the Prolog knowledgebase.
- Analysing and comparing the models produced using PYKEEN and Top-Down Induction of Logical Decision Trees.

**SMART APPLICANT TRACKING SYSTEM (HTML, CSS, JQUERY AND PYTHON DJANGO)** JAN 2019 – MAR 2019

- Acted as the team's Business Analyst and frontend team member in creating a prototype for a smart application system.
- Led client consultation meetings to understand the stakeholder's existing environment, needs and concerns.
- Selected solutions that delivered the most value based on factors such as: scope, risk and reusability and capabilities.
- Created interactive web pages for the entire project using HTML, CSS, jQuery and Bulma CSS framework.
- Used machine learning algorithms to rank applicants, based on application features such as skills and experiences.
- Awarded second place by Deutsche Bank out of thirty-two participating teams.

**DEPARTMENT STORE DATABASE MANAGEMENT APPLICATION (SQL AND JAVA)** NOV 2018 – DEC 2018

- Produced a database application to expand the services a department store offers.
- Wrote SQL schema describing the tables: inventory, orders, order products, staff and staff orders.
- Developed queries providing analysis on staff and product data E.G. highest selling products, highest selling staff.

**MULTITHREADED INTRUSION DETECTION SYSTEM (C)** OCT 2018 – NOV 2018

- Intercepting and parsing IP and TCP protocol layers.
- Identifying suspicious packets and producing a report containing a breakdown of the malicious activity.
- Implementing a threading strategy to allow code to deal with high packet throughput.

## WORK EXPERIENCE

**KING ABDULLAH UNIVERSITY OF SCIENCE AND TECHNOLOGY |** Visiting Student Research Programme Intern SEP 2019 – PRESENT

- Working under the supervision of Prof. Robert Hoehndorf as part of the Bio-Ontology Research group.
- Worked on a project titled 'Predicting drug-disease links with distributive and symbolic methods'.
- Created and analysed graph-based machine learning algorithms to predict missing links in pharmacogenetic data.
- Developed a network representing the interactions between drugs, genes and diseases using RDF and Prolog format.
- Presented my findings to an audience of Professors, Research Scientist and current PhD students.

**TEACH FIRST |** Intern STEM Teacher MAR 2019 – APR 2019

- Spent two weeks practically experiencing the STEM challenge through teaching at a state run non-selective secondary school.
- Taught database concepts and the python programming language, using live demonstrations, to children aged 11-16.
- Strengthened my leadership skills and my ability to manage and work with a wide range of age groups, from students to teachers.
- Offered a full-time teaching role from my performance as a teacher and member of staff.

**WARWICK AFRICA SUMMIT |** Events Team Executive OCT 2018 – APR 2019

- Organised a two-day conference on the social and economic development of Africa, hosting 20+ speakers and 500 attendees.
- Planned an exhibition/showcase for distinguished speakers, celebrating creative talent within students at the University of Warwick.
- Worked with the marketing team to devise an efficient digital marketing strategy through social media to maximise ticket sales.
- Successfully sold out tickets to 500 attendees' two weeks before the event

## VOLUNTEERING

**WARWICK ISLAMIC SOCIETY |** Charity Week 2018 Volunteer. OCT 2018 – NOV 2018

- Planned events to raise funds for orphans and children in the local area and worldwide.
- Coordinated events during the week to inform people of the mission of charity week and encouraging them to donate.
- Successfully raised the most in the Midlands with a total of £20,994.

## EXTRACURRICULAR & SKILLS

**TECHNOLOGY:** Proficient in Python, Java, HTML and CSS; familiar with JavaScript (jQuery), PHP and SQL; previously used C.

**SOFTWARE:** Microsoft Office (Word, PowerPoint and Excel), LaTeX and BibLaTeX.

**LANGUAGES:** English (Fluent/Native) and Yoruba (Fluent/Native).

**SPORT:** Captain of Coopers School and Townley Grammar School Basketball Team.

**AFFILIATIONS:** 2019 SEO-London Candidate.

