

## CONTACT:



• 07443564783



• thabogulu@gmail.com



• <https://github.com/tgulu>



• <https://linkedin.com/in/thabo-gulu>

## EDUCATION:

**University of Essex, United Kingdom**  
**October 2017 - August 2021**

**2:1 BSc (Hons) Electronic Engineering**  
**(Including Study Abroad)**

- Programming, Electronics, Engineering Mathematics, Computer Vision, Networking, Cyber Security, and Mobile Robotics
- Dean's Student List of Excellence for 2019-2020.
- Vice President of the Skateboarding Society, 2018-2019.

**University of Guelph, Canada**  
**August 2019 - April 2020**

**1st BSc Electronic Engineering Study Abroad**

- Majored in Computer Science and Linear Algebra
- Minored in Art, Music, Philosophy, and Photography.

## LANGUAGES & FRAMEWORKS

- SQL
- Java
- Kotlin
- C | C++
- HTML | CSS
- Python | Django
- JavaScript | React

## SKILLS & TOOLS:

- Test-Driven Development Practices
- Managing Software Projects through Agile Development
- Proficiency with GIT and SVN
- Google Cloud Platform
- Familiarity with Mac, Linux, and Windows operating systems
- Android Application Development
- Database Creation and Manipulation
- Critical Thinking and Problem Solving
- Adept at using the Microsoft Application Suite

# Thabo Gulu

## SOFTWARE ENGINEER

### PERSONAL PROFILE :

An innovative and highly capable junior software engineer with strong interpersonal communication skills, extensive experience with planning, programming, and developing projects, as well as a comprehensive understanding of object-oriented programming and test-driven development. Seeking a position in a forward-thinking, diverse organisation to expand my leadership, technical, and analytical skills while enhancing my current skill set.

### PROJECTS:

#### Interfacing Android with a Quadrotor Drone (Java Android Application | Arduino C )

The project involved building a custom quadrotor drone with an Arduino Uno serving as the flight controller. A Java-written Android application was developed to manage the flight controller and provide remote control functionality for the drone.

##### Features:

- The quadrotor drone was custom-built using high-quality motors, ESCs, a LiPo battery, an inertial measurement unit, and an Arduino Uno as the flight controller.
- The Java Android application was designed to communicate with the quadrotor drone via UDP packets sent via web sockets.
- The remote-control functionality of the drone was provided by the Java app, which allowed users to control the drone's movements via joysticks on the app's user interface.
- The app's user interface was designed to be responsive and user-friendly, allowing users to easily control the drone's movements in real-time.
- The integration of the Java app with the quadrotor drone resulted in a reliable and efficient communication system that enabled the drone to be controlled with ease.

#### Job Application Website (Java | Spring Boot | MongoDB | React | Google Cloud Platform)

The Job Application Website provides users with a comprehensive list of software developer job openings. The website features a user-friendly interface with seamless integration between the React front-end and Java backend server, which is hosted on Google Cloud Platform. The end result is a robust and scalable web application that provides a smooth user experience for job seekers.

##### Features:

- Job search and filtering features provide users with an easy way to search and filter job openings based on certain criteria, such as location, job title, and company.
- MongoDB is used for database storage due to its flexible document storage and retrieval capabilities.
- Website hosting is done using Google Cloud Platform, which provides a cloud-based infrastructure for deploying and scaling web applications.
- Java is used for building the backend server, which handles user requests and serves data from the database.
- The API is implemented using Spring Boot.
- The frontend React application makes HTTP requests to the API endpoints provided by the backend Java server using the Axios library.

### WORK EXPERIENCE:

#### Self Study

**October 2022 - Ongoing**

- Took a break from work to focus on self-study and online courses. Dedicated the time, to learning new skills and enhancing personal knowledge in software development.
- Completed online courses on platforms such as Codecademy and Udemy, and also devoted time to self-study and personal projects.

#### Deliveroo

**September 2022 - October 2022**

- Communicating with customers and restaurants effectively and professionally.
- Delivering products in a timely manner.
- Directing customer complaints and resolving customer issues efficiently.

#### Information Tech Consultants – Android Developer (Kotlin/Java)

**May 2022 - July 2022**

- Delivered and developed well-tested and maintainable client-based Android applications with a focus on security and privacy.
- Implemented libraries such as Retrofit, RxJava2, Hilt, Coroutine, Dagger, Glide, OkHttp, Firebase, and Android Architecture Components.
- Routinely worked with RESTful APIs, utilising JSON, and XML data.

#### Brighton Met College–Lecturer & Curriculum Administrator

**September 2021 - May 2022**

- Mentoring aeronautical, automotive, and engineering students academically to help them succeed with engineering mathematics.
- Communicating complex concepts to classes to improve students' grades.
- Creating, updating, and maintaining company databases.
- Guaranteed that students attended courses and boosted average attendance to 86% in our area.