MOHAMED IQBAL SHAH B ABU BAKAR
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EDUCATION

National University of Singapore (NUS),
Doctor of Philosophy (Built Environment) Candidate   **Aug 2022 to Present**
- Awarded NUS President's Graduate Fellowship
- Research Work in Façade Systems (thermal and energy studies), Digital Twin Development (Interface and actuators implementation) and Ontology Automation

National University of Singapore (NUS),
Bachelor of Science (Hons) in Project & Facilities Management   **Aug 2018 to Dec 2021**
- Graduate with Honours (Highest Distinction)
- Received Dean's List Award for 3 consecutive Semester (Awarded to top 5% of students)
- Received Best BIMx Award by Graphisoft, developer of ArchiCAD
- Graduation Class Giving Champion 2022

Temasek Polytechnic,
Diploma in Integrated Facility Management   **Apr 2013 to May 2016**
- Graduated as Course Gold Medalist (Top Scorer)
- 17 Distinctions and 8 A's
- Obtained additional Diploma Plus in Entrepreneurship and Innovation (offered to top 10% of cohort)

Singapore Civil Defence Force,
Certified Fire Safety Manager   **Jan 2016 to Present**
- Certified to enhance and ensure fire safety standards within buildings

WORK EXPERIENCE

Research Engineer (Building Robotics Laboratory),
National University of Singapore (Department of The Built Environment)   **Jan 2022 to Aug 2022**
- Research and develop Digital Twin solutions for the Built Environment (with industry collaborators such as Amazon Web Services)
- Development of ontology automation for current digital twin systems
- Conducted thermal and energy studies on façade shading systems, vertical greenery systems and heat reflective paints

Intern,
Tampines Town Council (EM Services)   **Jun 2020 to Aug 2020**
- Conducted data analysis on over 500,000 rows of data to identify lift breakdown patterns over specified analysis period
- Present and proposed preventive and predictive maintenance strategies, to reduce future breakdown rates.
- Assisted property officers in addressing resident's concerns, and developing problem-solving solution

Platoon Commander,
Singapore Armed Forces (National Service)   **Jul 2017 to May 2018**
- Coordinated movement of 62 vehicles for deployment of troops and resupply exercise in 2018, for Singapore's largest mobilization since 1985, 0 faults were found during mobilization audit

- Demonstrated teamwork and critical thinking by working closely with over 7 departments, in developing new effective military deployment strategies
- Guided serviceman in need of help, through various confidential means to ensure morale of platoon stays high

Project Assistant,
Singapore Building & Construction Authority (Green Mark Department)   **Aug 2015 to Sep 2015**
- Developed and conducted troubleshooting for BCA Green Mark for School Toolkit, currently being used in industry renowned BCA Back-to-School Program
- Analyzed and revised BCA Green Mark for School Criteria, approved and published in 2015
- Represented BCA by presenting in a Responsible Urbanism Forum during the 2015 International Green Building Conference, to educate over 300 industry members on BCA's Green Mark for School version 2.0 Criteria

Intern,
Singapore Building & Construction Authority (Green Mark Department)   **Apr 2015 to Aug 2015**
- Organized 2015 BCA student engagement workshop, elevating knowledge of over 100 participants on sustainable building as well as environmental management
- Created an engaging workshop marketing and introduction video garnering complements of top-level directors as well as participants
- Aided in the Green Mark Audit process for 3 buildings applying under the Green Mark for Existing Non-Residential Building Criteria
- Managed large amount of confidential data for 3 Green Mark Projects

SKILLS

Technical
- Proficient in 8 Design and Simulation Software: Graphisoft ArchiCAD 23, AutoCAD 2010, AutoDesk Revit Architecture 2012, Revit 2014(and above), Revit Inventor Professional, Autodesk Navisworks, Google Sketchup, IES Virtual Environment 6.4, DesignBuilder
- Proficient in Microsoft Project (For Project Management)
- Proficient in Professional Video Editing Software: Sony Vegas Pro 13, Camtasia studios 8
- Proficient in Arduino IDE (for programming Internet of Things Solutions), Python for Data Analytics and Actuation, C# (for interface development in Unity)

Workplace
- Applied knowledge and skills of Microsoft Office Suite in various assignments and projects at school and work
- Cooperative and work successfully as a team in both work and school
- Has initiative in ensuring successful completion of projects
- Flexible and adaptable when faced with challenges
- Has good interpersonal and communication skills
- Fluent in spoken and written English and Malay

OTHER ACHIEVEMENTS

- Recipient of Building and Construction Authority iBuildSG Industry Sponsorship in 2018-current
- Merit Award (top 5% in Temasek Polytechnic Engineering School) for Major Project in 2016
- Achieved Temasek Polytechnic Director's List Award for top 10% of cohort in 2014 and 2015