

# Abutalha Alam

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## PROFILE

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Technologist specialising in innovation, product development, and computational social science. Passionate about creating impactful solutions in startups and technology ecosystems. Experienced in leading collaborative projects and navigating dynamic environments to deliver strategic results.

## EDUCATION

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### BSc (Hons) in Computational Social Science (CompSci, DataSci, Sociology, Economics)

University College Dublin (UCD), Ireland

2022 – 2026

Achievements: *Social Sciences Award, UCD Advantage Award.*

Activities: Investors & Entrepreneurs Society, NetSoc, Hispanic Society, Badminton Club.

### Information Engineering & Media and Economics

Nanyang Technological University (NTU), Singapore

Exchange Semester

Focus: Software engineering, emerging markets, and cross-cultural collaboration.

### Leaving Certificate

Castletroy College, Ireland

2017 – 2022

Achievements: Leadership Award (2021).

Activities: Prefect, Student Council Vice and Chairperson, Chess Club.

## EXPERIENCE

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### Founder & CEO, Brigaid Networks

Jan 2024 – Sep 2024

- Bridged the digital divide for underserved communities through affordable, off-grid telecom solutions.
- Led product development for a cross-industry collaboration platform, focusing on user-centric design for low-cost mesh networking systems using GSM, LoRa, and BLE (ESP32, C++).
- Raised \$25,000 in angel funding whilst growing & leading an award-winning team (ISEF, Enactus24).

### Dogpatch Labs / NDRC Pre-Accelerator

Jul 2024

- Gained startup skills in customer identification, market analysis, and financial planning during a 6-week program.
- Pitched startup to an audience of investors and mentors, receiving critical feedback to refine the business model.

### Risk Analyst, UCD I&E Student Managed Fund

Sep 2023 – May 2024

- Ireland's only real-life, long-only equity fund for students with €30,000 AUM sponsored by Davy and Fidelity International.
- Identified, evaluated and mitigated potential risks of various companies and industries the fund was interested in.

### Programming Tutor, University College Dublin/Universitas21

Sep 2023 – Dec 2023

- Delivered Python programming tutorials to students in Myanmar, enhancing their coding proficiency.
- Designed lesson plans to simplify complex concepts for diverse learners.

### Participant, Patch Talent Accelerator

Jun 2022 – Aug 2022

- Patch, Ireland's top youth accelerator. A 7 week programme to take Ireland's best & brightest, and bringing them together to work on a project for duration of the programme. Its backed by major MNCs such as Stripe, OpenAI, & The Naughton Foundation.

- I wholly designed & developed a platform, Tenantap, for simplifying the Irish rental processes, wait-listing 1200 tenants, & 7 letting agencies for the platform.

## LEADERSHIP & COMMUNITY ENGAGEMENT

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### TECS Program Mentor

Nov 2024

- Mentored 7 participants in developing innovative projects, providing professional and technical guidance to enhance outcomes.
- Assisted in refining project pitches and MVP development to meet competition standards.

### Peer Mentor & Cairde Mentor, UCD

Sep 2023 – May 2024

- Supported 85 students in adapting to university life through academic and personal mentorship.
- Assisted exchange students in settling into UCD and Dublin through the Cara program.

### NASA Space Apps Campus Ambassador

Sep 2023 - Nov 2023

- Organized the NASA hackathon, increasing student participation at the TUS Athlone location by 40%.
- Hosted workshops and events promoting STEM and entrepreneurship.

### Class Representative, UCD

Sep 2022 – May 2023

- Advocated for academic and extracurricular improvements across stages 1, 2, & 3 of the Computational Social Science program.

## SELECTED PROJECTS

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### Lifebound

Full-stack college application management platform to a stress free college admissions process with AI driven insights for applications. **Tools:** React.js, Node.js, PostgreSQL, OpenAI API, MaterialUI, Vercel.

### NovelTranslates

Full-stack translation platform for Asian literature, utilizing generative AI and custom large language models (LLMs) for dynamic text translation and contextual adaptation. Enabled advanced content filtering and language proficiency tools to enhance user accessibility. **Tools:** Python, Flask, MongoDB, React.js, LLMs, Docker, Figma.

### Patch Robot Wars: Le'Go

Designed and built a competitive combat robot with a "Koopa shell" design, optimized for durability and control. Collaborated to innovate under tight constraints, developing advanced mechanical and electronic systems. **Tools:** Arduino, C++, ESP32, Fusion360, Onshape, Blender, Cura, PlayStation Controller, 3D Printing, Ikea materials.

## SKILLS

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**Programming Languages:** Python, JavaScript (React.js, Node.js), C++, Go, R, Astro, Arduino, LLMs

**Frameworks and Tools:** Unreal Engine, Git/GitHub, MaterialUI, Fusion360, SPSS Stats.

**Design and Creative:** Figma, Blender, Aseprite, Cura, Lightroom, Premier Pro.

**Soft Skills:** Leadership, Grit, Collaboration, Mentoring, Adaptability, Strategic Thinking.

## AWARDS

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Irish Student Entrepreneur Forum (3rd Place)

AIB/A&L Goodbody

Apr 2024

Social Sciences Award

University College Dublin

Mar 2024

UCD Advantage Award

University College Dublin

Apr 2023

Future CTO of the Year Finalist

GradIreland/Tiktok

Mar 2023

TECS Overall Winner

Stripe/University of Limerick

Jan 2022

Leadership Award

Castletroy College

May 2021

## INTERESTS

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Startups, Writing & Publishing (Soul & Syntax), Game Design, Travelling, Chess, and Cross-Cultural Exchange.