

# AKSHAT PASBOLA

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[www.pasbola.eu](http://www.pasbola.eu) | [GitHub](#)

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## PROFESSIONAL SUMMARY

Motivated and detail-oriented **Computer Science student** at **Technological University Dublin**, specializing in software development, embedded systems, and API-driven solutions. Demonstrates strong technical proficiency, leadership, and problem-solving skills through both academic excellence and real-world projects.

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## EDUCATION

**Technological University Dublin (TU Dublin)** — *B.Sc. in Computer Science (TU856)*  
2024 – 2028

- GPA: **4.15 / 5** (First Year)
  - Expected **2.1 Honours Degree**
  - Relevant Coursework: Program Design, Object-Oriented Programming, Databases, Operating Systems, Web Development
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## PROFESSIONAL EXPERIENCE

**Peer Tutor** — TU Dublin School of Computer Science  
June 2025 – Present

- Provide individual tutoring for first-year students in **Programming Design** and **OOP** modules.
  - Facilitate understanding of key computer science concepts through tailored learning sessions.
  - Coordinate with faculty to support supplemental exams and enhance student learning outcomes.
  - Strengthened communication, leadership, and mentoring abilities through consistent student engagement.
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## PROJECTS

### Digital Bus ETA Display System

- Engineered a real-time **bus ETA display** leveraging **Python, REST APIs (TFI)**

### MAX7219 LED matrix

- Integrated live public transport data with robust error handling and optimized data refresh rates.
- Deployed on **Raspberry Pi**, demonstrating practical IoT implementation skills.

### Embedded Interactive Game (STM32)

- Designed and developed an interactive game on an **STM32 microcontroller**, featuring custom gameplay, menus, and physical input controls using **C**.
- Managed memory and timing constraints to ensure smooth hardware-level execution.

### Digital Clock with LED Matrix

- Created a **Python-based digital clock** utilizing four daisy-chained **MAX7219 LED matrices**.
- Implemented synchronized time display and low-power optimization techniques.

### Portfolio Website

- Built and deployed a personal website to highlight academic and professional work: [www.pasbola.eu](http://www.pasbola.eu).
  - Employed responsive design principles using **HTML, CSS, and JavaScript**.
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## TECHNICAL SKILLS

**Programming Languages:** C, Python, JavaScript, Bash, Assembly

**Frameworks & Tools:** Flask, Node.js, STM32CubeIDE, Git, Linux Shell

**Operating Systems:** Ubuntu, Arch Linux, Raspbian, macOS, Windows

**Core Competencies:** Embedded Systems, REST API Integration, IoT Prototyping, Version Control, Problem Solving

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## ACHIEVEMENTS & INTERESTS

- Selected as **Peer Tutor** for demonstrating academic excellence and mentoring capability.
- Developed multiple personal and academic projects combining **software, hardware, and data integration**.

- Interests include open-source development, cloud computing, and applied AI in embedded systems.
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**References available upon request.**