

# TAHA HUNAID ALI

Jumani Square Apartments, Karachi, Pakistan

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## EDUCATION

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### **Bachelors in Computer Science**

*Habib University, Karachi*

Expected Graduation: May 2026

*Aug 2022 - Present*

### **Intermediate**

*Aga Khan Higher Secondary School, Karachi*

Achievements: 98.6% in Inter Part 1 Examination (A-1 Grade)

*Aug 2020 - May 2022*

### **Matriculation**

*BVS Parsi High School, Karachi*

Completed with A-1 Grade

*Aug 2018 - May 2020*

## ACHIEVEMENTS

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- Accepted in Stanford University International Program 2023
- Received 100% TOPS Scholarship Habib University
- Recipient of Edhi CA Talent Scholarship
- Received Meritorious Awards at Habib University
- Awarded AKUEB Bridge Scholarship

## EXPERIENCE

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### **Research Intern**

#### **Association of Internet Research Specialists (Remote)**

- Researched online and traditional investigative methods for business applications.
- Contributed to writing research-based articles and improving search methodologies.

*Jun 2023 - Aug 2023*

### **Business Operations Intern**

#### **Sabba Enterprises, Karachi**

- Managed purchase orders, tracked sales and inventory.
- Researched local market trends and pricing.
- Coordinated with vendors and assisted in digital marketing.

*Aug 2024 - Jan 2025*

### **Data Growth Analyst Intern**

#### **Indus Motors Toyota**

- Analyzed company trajectories and historical data to estimate sector-wise growth trends.
- Studied data patterns to support strategy development across business units.
- Conducted operational analysis, set performance targets, and supported negotiation strategy

*June 2025 – August 2025*

## PROJECTS

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### **Synthesizable Lightweight Cryptography Module**

- Designed a compact crypto module to enable secure data handling in IoT devices.

### **Navigation System for Optimized Pathfinding**

- Built a smart route planner for building/campus navigation using search algorithms.

### **Bifurcation Analysis on SIR Model**

- Simulated disease spread and analyzed threshold points in epidemic curves.

### **3D Spider-Man Game (Unity)**

- Developed a 3D game with real-time rendering and web-swinging physics.

### **5-Stage CPU Pipeline in Vivado**

- Implemented and tested a complete RISC CPU pipeline with all core stages.

### **Event Committee DBMS (MySQL + Web Interface)**

- Built a web app with role-based access to manage events and volunteers.

### **TA + Student Club Scheduler**

- Created a cloud-hosted scheduler using AWS and built an intuitive user interface.

### **Reinforcement Learning Models (AI Course Project)**

- Implemented Monte Carlo methods and Deep Q-Learning for path optimization in simulations.

### **Slotify - Online Booking Website and App**

- Developed a responsive API integrated entertainment slot booking platform with AI chat bot and agent.

## **TECHNICAL SKILLS**

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**Programming Languages:** Python, C++, SQL

**Game Development:** Unity, 3D Rendering, Physics-based Animation

**Hardware & Embedded Systems:** Vivado, FPGA, Computer Architecture Design

**Database & Backend Development:** MySQL, PostgreSQL, MongoDB, Database Optimization

**Cloud & Web Technologies:** AWS (EC2, RDS, Lambda), API Integration, Docker, Node.js, Express.js, Firebase, React Native

**Software & System Development:** Algorithmic Thinking, Automation, UI/UX Design, Matplotlib

**Agile & DevOps Tools:** Jira, Scrum, Git, Version Control

**Documentation and Scripting:** LaTeX, Shell Scripting

**Operating Systems & Tools:** Linux, Git, CI/CD Pipelines

**Business & Marketing:** Market Research, Pricing Strategies, Customer Communication, Negotiation

**Operations & Logistics:** Inventory Management, Record Keeping, Supplier Coordination

**Digital & Analytical Skills:** Social Media Marketing, Online Promotions, Data Visualization

## **PROFESSIONAL SKILLS**

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- Team Leadership
- Project Management
- Logical Problem Solving
- Marketing and Negotiation
- Adaptability and Versatility

## **COMMUNITY SERVICE**

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### **Faize Hakimi**

- Organized campaign on time/stress management.
- Raised funds for flood victims.
- Volunteered for COVID-19 food drives.

### **Empowering Futures: Digital Literacy for Orphans**

*May 2025 - Jun 2025*

*SOS Youth Home Karachi*

- Conducted a comprehensive 15-class digital literacy bootcamp for orphaned students.
- Delivered hands-on training with IDEs, computation concepts, and coding assignments.
- Co-led sessions on problem-solving, real-world programming, and long-term learning paths.

## **COURSES COMPLETED**

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### **Certified Internet Research Specialist (CIRS)**

*Jun 2023*

- Learned web intelligence, search strategies, and verification techniques.

## **RESEARCH PAPERS**

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### **Lightweight Cryptography in Constrained Devices**

- Studied compact encryption methods suitable for embedded systems.
- Proposed security-performance trade-offs for IoT environments.

### **Probabilistic Computing Models in Epidemiology**

- Modeled disease spread using stochastic simulations.
- Compared with deterministic methods to assess forecasting accuracy.