

Abdullah Khaled

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Education

- Wakeland High School**, High School Diploma – Frisco, TX Aug 2023 – May 2027
- Unweighted GPA: 4.0
 - Rigorous course load including 12 APs before senior year

- Frisco ISD Career and Technical Education Center**, Project Lead The Way – Frisco, TX Aug 2023 – May 2027
- Introduction to Engineering Design, Principles of Engineering, Digital Electronics, Engineering Design and Development
 - [PLTW Engineering EPortfolio](#)

Experience

- Programming Lead, Chief Technical Advisor**, ITKAN Robotics (FRC 9128) – Frisco, TX Sept 2023 – present
- Led team to playoffs at Texas State Championship (89 teams) using AprilTag pose estimation, and swerve drive odometry achieving sub 2-inch precision
 - Trained 4 students in Java robotics programming; created Java training website: [Mantik's FRC Curriculum](#)
 - Developed custom publish-subscribe motor logging system for real-time diagnostics analyses
 - Implemented finite state machine with Dijkstra's Algorithm
 - Used FRC-specific Java mechanism simulation towards telescoping arm optimization

- Founder, President, Youth Mentor**, Wolverine Robotics (FTC 33791) – Frisco, TX Aug 2024 – present
- Founded inaugural Robotics Club scaling from 0 to 50+ members in first year, securing funding and registration in under 2 weeks
 - Teach CAD software (Onshape) and Java programming through monthly technical workshops
 - Manage club operations including mission development, curriculum design, and budget management

- Programming Mentor**, ITKAN Robotics of ICF (FTC 26357, 28931) – Frisco, TX Sept 2024 – present
- Trained 5+ students in Java, command-based programming, motor control, PID tuning, servo control, sensor integration, and dead-reckoning wheel odometry
 - Created self-paced learning website and summer training programs: [Mantik's FTC Curriculum](#)
 - Mentor refugee children in FLL workshops and lead weekly summer training for FTC and FRC students through self-made [OARobotics](#) curriculum

- Math and Reading Instructor**, Gideon Math and Reading Center – Frisco, TX Sept 2024 – present
- Instruct K-11th grade students in mathematics (Algebra, Geometry), reading, and grammar
 - Analyze student performance data to identify learning gaps and develop personalized plans
 - Utilize ChatGPT for reading material level assessment and adjustment

Projects

- Senior Fall Monitor Device – Samsung Solve for Tomorrow** Jan 2024 – present
- Developed lightweight TensorFlow Lite ML model for real-time motion tracking and fall detection on mobile devices with buzzer alert system
 - Engineered hybrid dataset combining public and custom annotated data, reducing false positive rate
- Oral Disease Detector – The Conrad Challenge** June 2024 – present
- Designed HIPAA-compliant federated learning architecture using TensorFlow Federated for distributed model training without exposing patient data
 - Used Onshape 3D CAD software to design and 3D print the device, reducing manufacturing costs

Extracurricular Activities

- Vice President**, Math National Honor Society – Wakeland High School, Frisco, TX Sept 2023 – present
- Led organization as Vice President (2024-25) and Treasurer (2023-24), managing budget for 100+ members
 - Designed Math Lab Program website using Google Sites and coordinated peer tutoring, attaining over 20% member participation
 - Organized annual middle school math competition with 100+ participants, 3 participating schools, and 35+ volunteers
- Secretary, Co-Founder**, Muslim Student Association – Wakeland High School, Frisco, TX Sept 2023 – present
- Co-founded MSA as Secretary, establishing organizational structure and creating digital promotional media
 - Negotiated with school administration to establish dedicated prayer room, coordinating facility setup and policies
- Lead Math and English Instructor**, Ma'ruf Project Taleem – Dallas, TX Sept 2023 – present
- Teach Math and English to refugee elementary and middle school students, developing differentiated curriculum
 - Provide mentorship in academic skills, time management, and social integration for students transitioning to American schools

Selected Honors

- (2025) Collegeboard AP Scholar with Distinction; NRP School Recognition Award
- (2025) FRC 9128: Event Winner (FiT Victoria, 25 teams); Autonomous Award (FiT Plano, 31 teams); Creativity Award (FiT Amarillo, 36 teams)
- (2025-26) FTC 26357: Finalist Alliance Captain (FiT-North McKinney Qualifier, 19 teams)
- (2025-26) FTC 28931: Dean's List Semifinalist (FiT-North D-League Tournament, 19 teams)

Skills

CAD/CAM: Fusion 360, Onshape

Software: Python, Java, HTML, CSS, Jekyll, MS Office

Electrical: NI Multisim, Soldering

Programming & Technologies: TensorFlow Lite, Federated Learning, solvePnP AprilTag vision, Kalman Filtering, Finite State Machines, Mechanism Simulation, Control Theory