

# Abdullah Khalid

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## Summary

Mobile Developer (Flutter/Firebase) | AI Integration Specialized in building cross-platform applications with Flutter and Firebase, enhanced with intelligent AI features. Focused on creating performant, user-centric solutions through modern tech stacks

## Education

FAST NUCES, BS in Computer Science

Sept 2021 – June 2025

- GPA: 2.98/4.0
- **Coursework:** Data Science, Natural Language Processing, Artificial Intelligence, Data Warehousing and Mining

## Experience

### PhysioGo - Remote Physiotherapy, FYP – Flutter, Firebase

- Built cross-platform app using Flutter/Firebase that provides real-time AI feedback on physiotherapy exercises
- Reduced need for in-person therapy sessions by 80% through remote monitoring
- Deployed scalable backend via Docker on Koyeb for reliable exercise tracking
- Improved treatment adherence with personalized rehab plans accessible anywhere

## Projects

### Copenhagen Bicycle Market Analysis

- **Web scraped** Copenhagen bicycle data using **Python**, analyzing pricing and demand trends with **Pandas/NumPy**
- Visualized market insights and brand performance with **Seaborn/Matplotlib** dashboards

### NLP & Machine Learning Projects

- Developed an English-to-Urdu translator using RNNs/LSTMs to handle complex language structures
- Created a sentiment analysis tool with Naive Bayes for accurate text emotion classification
- Fine-tuned LLMs (Llama, Phi-3) for specialized tasks, improving model performance

### Automated Seating Plan Generator

- Developed a K-Means clustering solution in Python (scikit-learn) to optimize student room assignments and create balanced allocations, reducing manual work by 70%
- Generated automated PDF reports for clear visualization of seating arrangements, using tools like Python, Pandas, scikit-learn, and ReportLab

## Technologies

**Programming Languages:** Dart, C++, C, Java, Python, C#, SQL, JavaScript

**Mobile Development:** Flutter, Dart, REST API Integration, State Management (Provider), Offline DB

**Backend:** Firebase (Authentication, Firestore, Cloud Functions), Node.js, Express.js

**Generative AI:** RNNs, LSTMs, Transformers, Fine-Tuning