

YOUSSEF FARID

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[Personal Website](#) | [Linked-In](#) | [Github](#)

SOFTWARE ENGINEER AND DATA ANALYST

Authorized to work in the U.S. (OPT through late 2029, no sponsorship required)

Software engineer with **experience** building production applications used by **14,000+ users** and developing data pipelines for real-world analytics. Strong coding background in Python, Java, C/C++/C#, SQL, and full-stack/mobile development, with hands-on work in machine learning, data manipulation and software development. Motivated New graduate with **1.5 years of work experience**, demonstrated communication skills and proven ability in taking projects from **Concept** to **Deployment**.

Professional Experience

E-Media Software - Database Administrator and Data Analyst Intern (1.5 Years of Experience)

Cairo, Egypt

May 2022 – September 2023

- Managed **production** MS SQL Server **databases** supporting a cinema platform serving **thousands** of users and locations
- Wrote optimized SQL queries improving reporting efficiency and reducing manual analysis workload
- Built automated reporting pipelines for large-scale ticket and snacks sales data
- Developed R/Shiny dashboards to analyze customer behavior and sales trends
- Delivered insights **influencing pricing strategy and marketing decisions** for Egypt's largest cinema software provider

Tech: MS SQL Server, R, SQL Analytics, Power Apps, SAP Crystal Reports, Excel, PowerPoint, Prezi

SELECTED PROJECTS

STEMER Companion Android App

Cairo, Egypt

July 2020 -June 2023

- Built and **deployed Android application used by 14,000+ students and parents** across Egypt
- Centralized exams, schedules, learning materials, and admissions resources **into one platform**
- Designed scalable backend architecture supporting **96% of Android device configurations**
- Developed accessibility-focused UI and maintained the application without monetization
- Maintained and updated production app with real user feedback

Tech: Java, XML, SQLite, Android Studio

LLM-Based Syllabus & Policy Analyzer

Grinnell, Iowa

May 2024

- Built an **NLP pipeline analyzing university course syllabi over 16+ years (2007–2024)**
- Fine-tuned transformer models to classify policy sentiment and strictness levels
- Engineered features from grading, attendance, and deadline policies for course analysis
- Built instructor policy ranking system integrated into a departmental teaching dataset
- **Incorporated** results into a database for integration Intro to **Data Science curriculum**.

Tech: Python, Hugging Face Transformers, PyTorch, NLP Pipelines, Text Classification, Data Preprocessing

GrinEats Student Dining Companion App

Grinnell, Iowa

September 2022 -April 2023

- Led the end-to-end design, prototyping, and architecting of a cross-platform student dining companion application focused on sustainability and health optimization.
- Architected a Flutter/Dart mobile application providing real-time access to dining hall menus, nutritional breakdowns, allergen flags, and personalized meal planning tools.
- Designed data models and application logic to incentivize food waste reduction by surfacing portion awareness and healthier alternatives at point-of-decision.
- Implemented user-centric UI/UX flows iterated based on live feedback during demos.
- Prototype won Grinnell Tech Exhibition 2022 and Spark Challenge **securing \$6,000 in funding.**

Tech: Dart, Flutter, Google Firebase, Adobe Xd, UI/UX Prototyping, Data Modeling

Project Deaf — Wearable Sign Language Translator

Cairo, Egypt

2020-2022

- Designed a **sensor-based wearable system translating sign language gestures into speech via speakers**
- Built multi-device architecture integrating **14 sensors, Arduino, and Raspberry Pi processing units**
- Developed Android application enabling **two-way communication between hearing and deaf users**
- Implemented speech synthesis and AR visualization for real-time translation feedback
- Conducted user testing with students with disabilities and iterated on recognition accuracy
- **Won 1st place in category at Egypt Intel Science Fair**

Tech: Arduino, Raspberry Pi, Python, Java/XML (Android), Google Translate and AR APIs, Embedded Sensors and Systems, Speech Synthesis, Bluetooth/Wi-Fi Communication

ADDITIONAL PROJECTS

GrinGamblers: Work In Progress - May 2026 - Node Js, Next Js and PostgreSQL Predictive Market Web App.

Plant Doctor: ML model detecting tomato diseases with 94% accuracy using 10k+ images

P2P Chat & Poll: decentralized messaging and polling system using networking and concurrency

HP Sudoku Solver: Implemented a massively parallel CUDA architecture solving **1,000,000** boards in **0.78 secs.**

And much more Projects

SKILLS

Languages

Python, Java, C/C++, C#, SQL, JavaScript, R, CSS/HTML, Kotlin, Dart, Bash

Frameworks & Libraries

React, Node.js, Next.js, TensorFlow, PyTorch, Hugging Face, OpenCV, Pandas, NumPy, CUDA, Keras, REST APIs

Data & Machine Learning

Data Engineering, Feature Engineering, Model Evaluation, NLP Pipelines, Data Visualization, MS Power Apps

Tools & Platforms

AWS, Firebase, Git, Linux/Unix, CI/CD, Docker, MySQL, SAP Crystal Reports, Agile and Waterfall Dev Cycles

Hardware & Systems

Arduino, Raspberry Pi, Embedded C/C++, PCB Design, Blender, 3D Printing, Sensor Integration, Bluetooth/Wi-Fi Systems.

EDUCATION

Grinnell College

Bachelor of Arts in Computer Science, Concentration in Statistics and Digital Studies Aug 2021 – May 2026

- **Selected Coursework:** Software Design & Dev | Oper Systems/Parallel Algorithms | Applied Data Science