

# Nikbakht (Niki) Mohseny

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## SUMMARY

Computer Science graduate and AWS Certified Data Engineer who builds data pipelines with Python, SQL, Airflow, and PySpark. Migrated a manual donor-reporting process into scheduled Airflow DAGs with automated validation and data quality checks, cutting pipeline time from 1 hour to 25 minutes and loading results into AWS Redshift.

## EDUCATION

**Indiana University, Luddy School of Informatics, Computing, and Engineering – Bloomington, IN** **July 2026**  
Bachelor of Computer Science, Software Engineering specialization, Data Science Minor | Major GPA: 3.69/4.0  
**Awards:** Western Union Global Scholarship, U.S. Embassy Fully Funded Scholarship

## PROFESSIONAL EXPERIENCE

**Data Processing & Program Operations Specialist** **Aug 2024 – Present**  
*IU Global, Indiana University Bloomington | On-site, Part-time*

- Maintain international student records and academic documentation, ensuring data accuracy and completeness
- Identify and resolve discrepancies in student records across IU systems (SIS and sunapsis)
- Verify English proficiency test results against admission requirements, flagging discrepancies for compliance

**Undergraduate Research Assistant** **May 2024 – Aug 2024**  
*Luddy School of Informatics, Computing, and Engineering, Bloomington, IN | Hybrid*

- Surveyed students via Google Forms with the Head of Advising Operations on SuperBetter's college-transition impact
- Analyzed survey responses in Excel to identify trends, patterns, and common themes across students

**Associate Software Engineer – Data Engineering & Analytics Platform** **Oct 2022 – Jul 2023**  
*Aga Khan Foundation Kyrgyzstan, Bishkek, Kyrgyzstan | Remote, Part-time*

- Built Python and SQL pipelines consolidating donor spreadsheets into AWS S3 for program and finance reporting
- Migrated manual downloading, cleaning, and merging of donor spreadsheets from multiple sources into scheduled Airflow DAGs with pytest validation, cutting pipeline time from 1 hour to 25 minutes
- Added data quality checks on pipeline outputs and loaded processed data into AWS Redshift for reporting

**Software Engineer Intern** **May 2022 – Aug 2022**  
*Aga Khan Foundation Kyrgyzstan, Bishkek, Kyrgyzstan | Remote, Full-time*

- Developed React frontend components integrated with Java backend APIs for internal project management tools
- Engineered REST API endpoints to automate retrieval of project and task data, replacing manual data exports

## LICENSES & CERTIFICATIONS

**AWS Certified Data Engineer – Associate**

## PROJECTS

**EduFlow — International Education Analytics Platform** **github.com/mohsenyniki/eduflow**  
*Python, SQL, Kafka, Airflow, PySpark, PostgreSQL, dbt, FastAPI, Docker, AWS S3*

- Built an end-to-end event-driven pipeline ingesting data via Kafka into S3 object storage, orchestrated with Airflow DAGs and processed with PySpark into a PostgreSQL staging layer
- Modeled a dbt star schema warehouse for analytics on student enrollment, visa compliance, and program performance
- Developed a FastAPI + Chart.js dashboard to surface pipeline metrics and analytics, containerized with Docker

**Kinword — Cross-Language Vocabulary Learning Platform (In Development)** **github.com/mohsenyniki/kinword**  
*Python, SQL, PySpark, Airflow, dbt, Terraform, AWS (S3, Lambda, Glue, Athena)*

- Helps learners use languages they already know by surfacing shared words in the language they are learning (e.g., Spanish azúcar, Arabic sukkar, Persian shekar, and Russian sakhar all share one root)
- Designing the pipeline: Lambda ingests Wiktionary etymology data into S3, PySpark transforms it, and dbt on Athena models shared roots, loanwords, and cognates on AWS Free Tier and pay-per-query services

**Course Scheduler — Student Portal & Course Enrollment System** **github.com/mohsenyniki/course-scheduler**  
*Java, Spring Boot, Spring Security, SQLite, JDBC, Maven, JUnit 5, Mockito, GitHub Actions*

- Built a Java/Spring Boot student portal with enrollment logic, schedule conflict detection, and Spring Security authentication, tested by 15 JUnit 5/Mockito tests in GitHub Actions CI

## SKILLS

**Data & Analytics:** SQL, Excel, Data Modeling, ETL Pipelines, Apache Spark (PySpark), Apache Airflow, Kafka, dbt

**Cloud & DevOps:** AWS (S3, Redshift), Docker, Kubernetes, CI/CD (Jenkins, GitHub Actions), Terraform

**Programming Languages:** Python, Java, Kotlin, JavaScript, HTML/CSS, C++, C

**Backend & Testing:** RESTful APIs, FastAPI, Microservices, Spring Boot, React, JUnit, Mockito, pytest, Agile

**Developer Tools:** Git, Jira, GitHub Copilot, Codex, Claude

**Languages:** Persian (Native), Arabic (Intermediate)