

# Basmalah Khreibi, Java Software Engineer

Saida, Lebanon +96171345971, [basmalah27@icloud.com](mailto:basmalah27@icloud.com)

---

## Professional Summary

Java software engineer with expertise and curriculum development, project management, and technical troubleshooting to deliver effective learning solutions. Skilled in Java, Python and database management, optimize application performance and streamline debugging process committed to fostering collaboration and mentoring to drive innovation and continuous improvement and software development.

---

## Work Experience

Jan 2025 - May 2025

### Teaching Assistant, BAU

Debbieh

- Assisted in teaching undergraduate courses: object oriented programming (OOP), discrete mathematics I, computer network, and theory of computation.
- Conducted lab sessions, guided students in solving assignments and supported instructors during lectures and exams
- Provide provided one-on-one help during office hours and contributed to course material development.

May 2022 - Oct 2022

### Fonder and programming instructor, iCademy

Remote

- Founded and led an online computer science club, delivering structured courses in C++, Java, and HTML/CSS
  - Designed course materials and practical coding exercises to strengthen problem-solving skills
  - Provided hands-on debugging support and technical guidance to students
  - Collaborated with co-instructors to maintain high quality and student engagement
- 

## Education

Sep 2021 - May 2024

### Bachelors in Computer Science, Beirut Arab University

Debbieh

---

## Skills

Solution oriented	Curriculum development
Project Management	Instructional design
Technical troubleshooting & debugging	Mentoring
Collaboration	Documentation & support
Creative thinking	Database & SQL
Web development	Python
Operating systems (Unix/Linux, Windows)	Java

---

## Courses

May 2018 - Aug 2018

ULYP summer coding workshop, ULYP

Jun 2019 - Oct 2019

Participation of Arduino club, Iman High School

Sep 2021- May 2022

Deans Honorary List, BAU

Apr 2022 - Apr 2022

Founder of Computer Science club, iCademy

Jan 2022 - Apr 2022

Digital Logic Workshop, iCademy

Jan 2023 - March 2023

Front-end Web-Dev with react, Coursera

## Selected Academic Projects

### **Operating Systems – Priority Scheduling Simulation (2022)**

- Situation/Task: Analyzed CPU priority scheduling algorithm performance in a simulated environment.
- Action: Designed and implemented simulations in Java to evaluate process execution behavior under different predefined parameters.
- Result: Developed strong understanding of process scheduling, algorithm efficiency, and system-level performance analysis, strengthening problem-solving and analytical skills.

### **CipherText Express – JavaFX Encryption Application (2023)**

- Situation/Task: Built a desktop application to encrypt and decrypt text using multiple cryptographic algorithms.
- Action: Developed a JavaFX-based UI application implementing RSA and Vigenère algorithms, Morse code translation, and sound signal output; independently learned and configured JavaFX.
- Result: Strengthened Java, OOP, exception handling, UI development, and debugging skills while demonstrating adaptability and self-learning ability.

### **Federated Learning for Improved Healthcare Performance – Graduation Project (2024)**

- Situation/Task: Researched privacy-preserving machine learning solutions for healthcare data.
- Action: Implemented Federated Learning models using Python, TensorFlow, Flower, and Hugging Face; integrated transformers to address data heterogeneity; evaluated models using accuracy, precision, recall, and F1-score across multiple datasets.
- Result: Enhanced expertise in machine learning, data privacy, distributed training, and analytical evaluation, demonstrating ability to handle complex technical research problems.

### **CarGuard AI – Automated Damage Classification (2025)**

- Situation/Task: Developed an AI-based system to classify vehicle damage severity for insurance claim support.
- Action: Built and evaluated CNN models (ResNet50, DenseNet169, custom 4D CNN) using Python and TensorFlow on real-world datasets; optimized performance through experimentation and model comparison.
- Result: Achieved 60.89% accuracy and 0.59 F1-score; strengthened skills in deep learning, model evaluation, data preprocessing, and performance analysis.

### **ExpenseGuard – Modular Java Financial Management System (2025)**

- Situation/Task: Designed a scalable desktop application for personal financial management.
- Action: Implemented a Java/JavaFX application using MVC architecture and SQLite; structured layered design to support future distributed features such as synchronization and fault tolerance; developed real-time financial reporting modules.
- Result: Strengthened software architecture design, database integration, OOP principles, and structured application development skills.