

# Sanae BOUTARFASS

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## Profile

Full Stack Developer with 10 years of experience, comfortable owning the entire technical lifecycle – from architecture to production. Stack:

- Front-end: JavaScript / TypeScript / React
- Back-end: Java / Spring Boot or Python / FastAPI
- Ops: Cloud, DevOps, CI/CD

Looking for a senior role on a mature engineering team.

## Professional Experience

April 2023–Present **Fullstack Developer,**

*Okeenea - Evelity (Java/Spring).*

- Shipped the Evelity back-office (React/Vite + Spring Boot 3) end-to-end – focused on scalability, maintainability and mobile compatibility.
- Designed a multi-datasource architecture with distributed transactions, batch jobs and async messaging.
- Drove quality engineering: code reviews, automated tests, strict CI (coverage  $\geq 80\%$ , TDD, SonarQube as a blocking gate), GKE deployment.
- Security: closed OWASP audit findings, hardened Keycloak / OAuth2 / OIDC / JWT auth.
- Steadily paid down technical debt through targeted refactors without slowing delivery.
- Worked closely with product, UI/UX and mobile teams.
- Tech stack: Java 17, Spring Boot 3, Spring Batch, PostgreSQL, multi-datasource, JTA Atomikos, QueryDSL, Hibernate Spatial, Apache Artemis, JMS, React 18, TypeScript, Redux Toolkit, Material-UI, Vite, Keycloak, OAuth2 / OIDC / JWT, GCP, GKE, Docker, GitLab CI/CD, Cloud Build

September **Fullstack Developer,**

2025–April 2026 *Okeenea - Evelity Vision (Python/SLAM) – shipped to production in April 2026.*

- Designed and shipped Evelity Vision from scratch in 8 months – full ownership of architecture, back-end, front-end and ops.
- End-to-end pipeline: 360° video → frames → Visual SLAM → GPS georeferencing → export.
- Integrated Stella VSLAM (open-source C++ engine) into a Python back-end via a JNI bridge.
- Implemented Sim(2) / Umeyama georeferencing with automatic building-floor detection.
- Async FastAPI back-office + React / Zustand front-end; 2D MapLibre and 3D Three.js visualization.
- Industrialized stack: pytest / vitest / Playwright E2E; GKE deployment; custom GCP observability.
- Tech stack: Python 3.9, FastAPI, SQLAlchemy, Pydantic, Alembic, PostgreSQL, Stella VSLAM / OpenVSLAM, C++, g2o, OpenCV 4, Eigen 3, CMake, JNI, React 18, TypeScript, Vite, Zustand, TanStack Query, MapLibre GL, Mapbox GL, Three.js, sonner, GCP, GKE, Cloud Storage, Cloud Build, Docker, GitLab CI/CD

October **Fullstack Developer,**

2022–March 2023 *Arca Computing - Job-search management platform.*

- Built a web platform to help job seekers manage their applications and searches.
- Tech stack: Java, Spring Boot, VueJS, H2 Database, Thymeleaf, NPM, GitLab

May **Fullstack Developer,**

2022–September *Arca Computing - Sinch.*

- Maintained and evolved an application for processing contact databases used to send SMS marketing campaigns.
- Tech stack: Java, Spring Boot, Angular, Mongo DB, Thymeleaf, NPM, GitLab

- September 2020–May 2022 **Adjunct Lecturer in Computer Science,**  
*University of Strasbourg.*
- Taught programming at bachelor's and master's level.
  - Supervised student projects and designed lab exercises.
- 2016–2020 **Research Engineer (Computer Science),**  
*MIA Lab - La Rochelle.*
- Designed and trained deep neural networks for image processing and analysis (B&W / infrared / panchromatic colorization, handwriting-style discrimination, face recognition).
  - Implemented deep-learning algorithms and scientific GUIs.
  - Built image datasets, evaluated models and tuned hyperparameters.
  - Tech stack: Python, OpenCV, Pandas, Numpy, Scikit-Learn, Matplotlib, PyQt, Tkinter, TensorFlow, TensorBoard, Keras, Pycharm, Visual Studio, Jupyter, GitLab
- March - August 2015 **Developer,**  
*IRSTEA - End-of-studies internship.*
- Detected floating rope on water surface to compute longitudinal flow speed.
  - Tech stack: Matlab, Java
- March - June 2013 **Developer,**  
*IFSTTAR - Internship.*
- Built a web app to catalog 3D objects and make them accessible to relevant stakeholders.
  - Tech stack: Java/JEE
- April - June 2012 **Developer,**  
*La RADEEL - Technical internship.*
- Built apps for quote tracking and KPI management. Configured VPN.
  - Tech stack: C#, VPN

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## Education

- 2013–2015 **Master's in Computer Science - Images and Systems,** *specialty Digital Imaging.*  
*Aix-Marseille University.*
- 2012–2013 **Vocational Bachelor's in Computer and Software Systems,** *specialty Digital Imaging.*  
*IUT Arles.*
- 2010–2012 **Two-Year Technical Degree in Computer Science,** *specialty Database Administration.*  
*École Supérieure de Technologie.*
- 2009–2010 **High-School Diploma,** *Mathematical Sciences.*

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## Publications

Sanae Boutarfass, Bernard Besserer. *Improving CNN-based colorization of B&W photographs.* 4th IEEE International Conference on Image Processing, Applications and Systems (IPAS), 2020.

Sanae Boutarfass, Bernard Besserer. *Colour palette as support for CNN colorization.* 4th IEEE International Conference on Multimedia Computing, Networking and Application (MCNA), 2020.

Sanae Boutarfass, Bernard Besserer. *Convolutional autoencoder for discriminating handwriting styles.* 8th European Workshop on Visual Information Processing (EUVIP), 2019.

Sanae Boutarfass, Bernard Besserer. *Using Visible+NIR information for CNN face recognition.* 7th European Workshop on Visual Information Processing (EUVIP), 2018.

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## Contributions

- 2017 **GdR-Isis,** *Multi-spectral and Color Imaging workshop, Paris, June 2, 2017.*  
*Talk title: Visible / near-infrared separation from a single sensor.*

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## Certifications

- 2023 Kafka · Dataiku · FastAPI · Terraform  
2022 PySpark · R · Tableau · Machine Learning · Data Science: Data Analysis with Python · Data Analysis with Pandas and Python

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## Technical Skills

- Languages JAVA 17, TYPESCRIPT, PYTHON (FASTAPI, SQLALCHEMY, PYDANTIC, ALEMBIC, PYSARK, PANDAS, NUMPY, SCIKIT-LEARN, MATPLOTLIB, OPENCV, PYQT, DJANGO, BOTO3 ...), C++
- Back-end SPRING BOOT 3, SPRING BATCH, JPA / HIBERNATE, QUERYDSL, HIBERNATE SPATIAL, FASTAPI, SQLALCHEMY, ALEMBIC, KAFKA, JMS (APACHE ARTEMIS)
- Front-end REACT 18, REDUX TOOLKIT, ZUSTAND, TANSTACK QUERY, MATERIAL-UI, VITE, HTML, CSS, SCSS
- Visualization & Computer Vision / SLAM THREE.JS, MAPLIBRE GL, MAPBOX GL, STELLA VSLAM, OPENVSLAM, OPENCV 4, G2O, EIGEN 3, CMAKE, JNI
- Databases POSTGRESQL, MONGODB
- Security KEYCLOAK, OAUTH2, OIDC, JWT, SPRING SECURITY, OWASP
- DevOps & Cloud GCP (GKE, CLOUD STORAGE, CLOUD BUILD), DOCKER, KUBERNETES, GITLAB CI/CD, TERRAFORM
- Testing & Quality PYTEST, VITEST, PLAYWRIGHT, JUNIT, MOCKITO, JEST, REACT TESTING LIBRARY, TDD, SONARQUBE, CHECKSTYLE, ESLINT, JACoCo
- Machine Learning & Data Science TENSORFLOW, KERAS, TENSORBOARD, CAFFE, SCIKIT-LEARN, PANDAS, NUMPY, PYSARK, DATAIKU, TABLEAU

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## Languages

Arabic: Native      French: Fluent      English: Working proficiency