

ALIREZA RAHNAMA

Software Developer

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WORK EXPERIENCE

Back-End Software Engineer Student | Verafin Inc. | St. John's, NL | 09/2022 - 04/2023

- Developed Return agent version 1.0 (**Java, object-oriented, test-driven**) to analyze illicit behavior, reducing return fraud by 40%. (**Gradle, Jenkins, Docker, IntelliJ, Tomcat**)
- Optimized Payment plugin by enhancing mule data collector and refining algorithms, resulting in a 30% reduction in false negatives and saving clients over \$9M annually in potential loss.
- Enhanced **SQL** queries for 10M+ daily transactions using **Querydsl** and **PostgreSQL JDBC API**, reducing query times from 20+ to under 1 minute and slashing cloud costs by 95%.
- Conducted **java unit testing** and **QA testing** via **JUnit** and **Mockito** to resolve potential problems early in SDLC, resulting in fault-tolerant software design and reduced QA costs.
- Automated tasks, analyzed logs, and troubleshoot production failures leveraging **Shell/Bash scripting, Java Service Wrapper**, and Amazon Systems Manager (**SSM**) on **AWS**.
- Streamlined the software development life cycle by participating in code reviews using agile/scrum methodologies and tools such as Confluence, Salesforce, Git, GitHub, and Teams.

Data Scientist | Hibernia EOR Group - ExxonMobil | St. John's, NL | 05/2022 - 08/2022

- **Automated extract, transform, and load (ETL) process** of drilling data from multiple formats, leveraging **Python** and **Apache Spark SQL**, reducing data processing time by 90%.
- Resolved data anomalies via EDA and visualization, utilizing **Python** libraries (**NumPy, Pandas, Plotly, Matplotlib, Seaborn**) and **Power BI**, facilitating decision making in a cross-functional team and increasing predictive model accuracy by 25%.
- Integrated over 1TB of heterogeneous time and depth-based datasets leveraging **Python**, reducing data discrepancies and boosting data analytics reliability.
- Launched and fine-tuned **machine learning algorithms** leveraging Python libraries (**Scikit-learn, Pandas, NumPy, TensorFlow, PyTorch**) in **Azure Databricks**, optimizing rate of penetration and reducing drilling costs by 15%.

Facilities Manager | Memorial University | St. John's, NL | 08/2021 - 04/2022

- Leveraged **Python** to streamline administrative processes, reducing manual data entry by 1000+ hours.
- Directed 30+ employees, enforcing policies, reducing incidents, and increasing efficiency.

PROJECTS

- **Movies App**: Developed an end-to-end web application featuring a **RESTful API** leveraging **Java Spring Boot** and **MongoDB Atlas** for back-end and **react.js** for the front-end.
- **Reminder App**: Built a full-stack **React.js** app to manage tasks from a **JSON** file. Containerized with **Docker** and established **CI/CD pipelines** by **GitHub** and **AWS Amplify**.
- **Java Arcade**: Designed and implemented 2 **Java GUI** games: **King Domino & Mind the Gap**.
- **Threshold Vision**: Created a **Java GUI** app to **extract the area of interest** in an input image.
- **Shape Detector**: Built a **Java GUI** app with Eclipse to **detect lines and circles** in an input image.
- **Personal Website**: Launched a **portfolio** website featuring a responsive design and integration with Twitter's **Rest API** using **Vanilla JavaScript, HTML, CSS, Node.js, jQuery**, and **Bootstrap**.
- **Machine Learning Predictive Projects**: Designed 4 projects and trained models to **successfully classify bioinformatics data, label clothing items, and predict automobile pricing** using **KNN, Random Forest, Lasso, Linear** and **Logistic Regression**, and **Tensor Flow** models.
- **PyFun**: Created 3 **Python games**: **Blackjack, Tic-Tac-Toe, and Rock-Paper-Scissors**.

SKILLS

Programming Languages: Java, Python, JavaScript, Spark SQL, Scala, Bash, C/C++
Web Development: HTML5, CSS, React.js
Unit Testing: JUnit, Mockito
Data Analytics & Visualization: Power BI
Database: PostgreSQL, SQLite, MongoDB
Version Control: Git & GitHub
CI/CD: Jenkins
Virtualization: Docker, Kubernetes
Cloud Computing: Azure Databricks, AWS
OS: Linux/macOS, Windows
Visual Computing: OpenCV, TensorFlow
Other: IntelliJ, Gradle, Maven, VS Code, Jupyter Notebook, Vim, Jira, Postman

EDUCATION

BSc. in Computer Science

Memorial University of Newfoundland
09/2020 - 12/2023 (Dean's List)

MSc. in Oil & Gas Engineering

Memorial University of Newfoundland
01/2018 - 10/2019

BSc. in Petroleum Engineering

Islamic Azad University
09/2011 - 06/2015

CERTIFICATIONS

Java Spring Boot | Amigoscode
C/C++ | ACENET
AWS Cloud Practitioner | Pluralsight
React 17 | Pluralsight
Splunk Fundamentals | Splunk - NYC
JUnit 5 | Pluralsight
Java SE 8 Programming | Pluralsight
Python & Machine Learning | ACENET
Complete Web Development | Udemy
Complete Python Bootcamp | Udemy