Yagmur Gulec - Curriculum Vitae (English)

Full Stack | Machine Learning | Data Analysis
Sherbrooke, Québec
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Summary

With a background in numerical modeling from academic research, I transitioned to software development, earning a master's degree in computer science. I have gained hands-on experience across diverse projects and technologies. A quick learner with strong adaptability, I continuously expand my knowledge through personal projects. Passionate about solving complex problems, optimizing performance and building scalable applications, with a strong interest in continuous deployment and automation.

Technical Skills

Programming: Python, SQL, JavaScript, HTML, CSS
Frameworks: FastAPI, React, Next.js
Cloud & DevOps: AWS (S3, Lambda, EC2), Docker, Linux, Bash
Database: MySQL, PostgreSQL
Developer Tools: Git, VS Code
Visualization & Reporting: Plotly Dasg

Education

- **Master of Science in Computer Science (Data Science)** January 2022 - May 2024
  Bishop's University, Québec

Personal Projects

- End-to-End Geospatial Climate Data Visualization with Spring Boot, PostgreSQL, and Deck.gl **PostGIS PostgreSQL (Database), Spring Boot (Java Backend for GeoJSON format), Typescript, React, Deck.gl (Frontend)** Github Repository | Youtube Video | Colab Project Folder

Experience

- **Machine Learning Engineer Intern** May 2025 - Present
  M2M Data Talent Program
  - Implementing data augmentation techniques for a large-scale image dataset to improve the performance of a deep learning model for Yolo Object Detection **Python, Image Processing**
- **Software Developer Intern** February 2024 - March 2025
  Riipen Level UP and Beyond the Cloud
  (For feedback and all projects: levelup.riipen.com/users/EzvbrEYz)
  - Automation of provisioning a Jenkins server running on an EC2 instance with Terraform **Ngnix, Bash Script, Terraform, Infrastructure as Code (IaC)** Google Docs
  - Built a full-stack interactive dashboard to deliver insights from prediction market data using **Python, Pandas, Plotly Dash, AWS Lambda**.
  - Optimized MySQL database schema for a voluntary board management system, improving query efficiency.
- **Ph.D. Researcher in Mechanical Engineering** Jan. 2019 - Sept. 2021
  University of Sherbrooke, Québec
  - Developed a numerical sub-model in OpenFOAM by implementing a dynamic contact angle model, enabling realistic simulation of physical interactions between heated surfaces and a growing vapor bubble in a liquid pool. **(Object-Oriented C++)**.
  - Deployed large-scale simulations on High-Performance Computing (HPC) clusters, using Bash scripting to automate job scheduling and data processing. **(Bash scripting and Linux)**

Languages

English: Fluent | **French:** Intermediate | **Turkish:** Native