

Daniel Michel

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Education

Misr International University

Sept 2022 – present

BSc in Computer Science majoring in Artificial intelligence

- **Coursework:** DSA, Algorithms II, Computer networks, Image processing, Software Engineering, AI.
- **Extra curricular activities:**
 - ACPC MIU competitive programming club IT co-head.
 - Tuners Club MIU Musician and HR committee member
- **Awards:**
 - Best project award in Problem solving (class of 190 students).
 - First place in the IEEE SB club arduino line follower competition.

Experience

Lab Assistant *Misr International University*

- Assisted TAs in labs and tutorials for programming and data structure courses, providing student support and clarifying concepts.

Projects

The Code Beacon Project

- A microservice application that integrates with **static code analyzers and continuous inspection**.
- Developed a Discord bot in TypeScript to send real-time notifications to Discord servers.
- Built a TypeScript Webhooks API for static-analysis events using **RabbitMQ** queues.
- Implemented Discord OAuth 2.0 with JWT for user registration, authentication, and authorization.

Intelligent Essay Grading system

- Worked on **SRS and SDD** documents detailing design patterns and requirements.
- Developed a REST API for user management, authentication, and CRUD operations.
- The application was built and tested using the WAMP stack.
- Implemented discussion forums for user interaction and engagement.

Mini custom Compiler

- Developed a custom mini-compiler in C++ with reduced syntax, including parsing, lexing, and AST generation.
- **LLVM** was used to generate intermediate representation (IR) and output machine code.

Webtranslation API

- Built a Node.js API for website localization with HTML parsing, content translation, and SEO-friendly meta tag updates.
- Created an **npm package using Webpack** for seamless integration by web developers.
- Utilized a local instance of LibreTranslate for translations.
- **Deployed services in Docker containers** for independent vertical scaling and efficient communication.

Desktop Weather App

- Developed a Windows weather application in C++ using **nlohmann json**, **libCurl**, SFML, and TGUI.
- Integrated a RESTful API to fetch weather data and forecasts for any specified location.

Technologies

Languages: C++, python, Javascript, Typescript, Java, SQL, PHP

Technologies: ExpressJs, NodeJs, RabbitMQ, SQLite, MySQL, MongoDB, SFML & TGUI, NeutralinoJS, Docker, Figma, Trello, Jira, Git, Bramus/router for php, NGINX, LaTeX.