Nenad Petrovikj

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ABOUT ME

I am a committed final-year software engineering student, pursuing a bachelor's degree at the Faculty of Computer Science and Engineering in Skopje. Having successfully completed over 30 IT related subjects, whilst actively participating in numerous projects, I showcase strong management and organizational abilities. Driven by challenges, with a goal-oriented mindset, I engage in problem-solving and active collaboration, while consistently meeting deadlines. My newly acquired knowledge in the field of CS, along with experience as a data science intern at a renowned institute, have encouraged me to successfully complete a variety of team projects and research papers. These experiences have enhanced my technical knowledge, while also strengthening my leadership skills, helping me actively listen and better understand others. With a proactive approach to learning and a determination to succeed, I am prepared to enter the practical world of software development and grow on a professional level as an engineer.

EDUCATION AND TRAINING

Field of study: Software Engineering and Information Systems
Faculty of Computer Science and Engineering, at the University "Ss. Cyril and Methodious" [2020 – Current]

Department: Natural Science and Mathematics
High school Rade Jovchevski – "Korchagin" [2016 – 2020]

WORK EXPERIENCE

Data Science Intern
Fraunhofer IEE [Jul 2023 – Dec 2023]

City: Kassel
Country: Germany
Website: https://www.iee.fraunhofer.de/

As a member of the Grid Planning and Grid Operation department, my activities and responsibilities covered:
  • Literature research related to artificial generation of heat pump profiles.
  • Processing, analyzing and modeling energy heat pump consumption profiles.
  • Use of Random Forest, Support Vector, LSTM and SARIMAX in ML model creation in Python.
  • Representation and evaluation of results. Code documentation.
  • Development of plotting functions for improved representation of various clustering systems.

PROJECTS

Web application service for pet-care
[Mar 2024 – Current]

In collaboration with nine other colleges.

This application is designed to connect pet owners with individuals offering various services such as pet walking. Users providing pet-care services can post ads with their available time slots, which other users seeking such services can then reserve. **My role** is working as a **back-end developer, leading the back-end team** and **product design**.

Technologies: Client-side: React / Server-side: SpringBoot (Java) / Database: PostgreSQL + Docker

Link: https://github.com/IskraNa/FurryFootsteps

Modeling predictions for SpO2 levels from PPG signals
[Oct 2023 – Current]

Mentored by prof. PhD Bojana Koteska. Research Paper in progress (due April 2024).

Creation of a ML regression model for the purpose of forecasting SpO2 levels in a patient's blood, based on PPG signals.

Technologies: Programming language: Python / Libraries: Pandas, Matplotlib, Tensorflow, SkLearn and HeartPy

Link: https://github.com/nenadpetrovikj/Predicting-SpO2-from-PPG

Web application service for managing internal faculty matter

[Mar 2023 – Sep 2023]

Mentored by prof. PhD Sasho Gramatikov.

The application aims to modernize the process of creating agendas for faculty meetings by offering a web-based solution. Administrators can easily input meeting content, which the system formats and displays. Searching for specific meetings, topics or employees, is made simple with the implemented filtering options.

Technologies: Client-side: HTML, CSS, Bootstrap, JavaScript / Server-side: SpringBoot (Java) / Database: PostgreSQL + Docker

Links: https://gitlab.finki.ukim.mk/wp/dnevnik | https://github.com/nenadpetrovikj/Ednevnik

E-commerce application for smart mobile devices

[Jun 2023 – Aug 2023]

This web application allows all the functionalities of an online store, such as registering an account, searching an item, filtering by preference, creating a shopping cart and check out (payments are simulated).

Technologies: Client-side: HTML, CSS, Bootstrap, JavaScript / Server-side: Django (Python) / Database: SQLite3 / G-mail and Stripe Integration

Link: https://github.com/nenadpetrovikj/DNICK_SMD_app

DIGITAL SKILLS

Programming languages, Frameworks and Libraries

Java + SpringBoot, Thymeleaf / Python + Pandas, NumPy, Matplotlib, Ski-kit learn, Tensorflow / SQL / C# + .NetCore / C / C++ / Django / React / JavaScript / Html + Css + Bootstrap

Technical Skills

Web Development and Design / Data Science and Analysis / Product Design and Architecture / Object - Oriented Programming / Alghoritms and Data Structures / Structural Programming / Software Quality and Testing

Other Tools

Docker / GitHub / Effective ChatGPT prompts / Microsoft Office

MANAGEMENT AND LEADERSHIP SKILLS

Project Management

Exceptional time management and scheduling / Productive Task Analysis / Capable in leading teams / Fostering effective collaboration / Structured approach towards problem-solving / Able to transform concepts into visible results

Communication and Interpersonal Skills

Open-minded / Eloquent and Concise / Attentive and Patient / Team player / Adaptive / Encouraging fresh perspectives

Certificate for completed training - "Communication Skills for Future Leaders"

Issued by: USAID & Career Center at the University "Ss. Cyril and Methodius" in Skopje

LANGUAGE SKILLS

Mother tongue(s): **Macedonian**

Other language(s):

English	**French**
LISTENING C1 **READING** C1 **WRITING** B2	**LISTENING** B1 **READING** B1 **WRITING** B1
SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2	**SPOKEN PRODUCTION** B1 **SPOKEN INTERACTION** B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user