Hansi Seitaj

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PROFESSIONAL EXPERIENCE

Junior Software Engineer **January 2024 – March 2025**
Avo Photonics *Horsham, PA*

- Designing, implementing, and maintaining software solutions, particularly in manufacturing data traceability.
- Proficient in MongoDB, Python, HTML, JavaScript, CSS, Docker.
- Collecting back-end and UI requirements while collaborating with operations and engineering teams.
- Reviewing and ensuring that code adheres to company standards and best practices.

Undergraduate Researcher **May 2023 – August 2023**
The Pennsylvania State University *Abington, PA*

- Boosted data extraction efficiency by 50% using advanced machine learning, vision algorithms, and multithreading.
- Introduced the Convolutional Recurrent Neural Network (CRNN) deep learning model.
- Customized the Optical Character Recognition (OCR) algorithm for improved text recognition.
- Utilized the Open Food Facts API to process and analyze over 100,000 unique data entries, resulting in a 20% increase in data accuracy.

Software Engineer – Project **August 2023 – December 2023**
The Pennsylvania State University *Abington, PA*

- Developed a predictive analytics platform in Golang integrating web crawler, web service distribution using Agile methodologies called PredictAi.
- Engineered secure back-end systems with MySQL stored procedures, parameterized SQL queries, and token-based authentication.
- Configured core modules via a unified JSON configuration file for streamlined integration.
- Aggregated and processed diverse datasets (airfare, books, gasoline, inflation) to derive actionable predictive insights.

Software Engineer - Project **January 2021 – May 2021**
Rowan College at Burlington County *Mount Laurel Township, NJ*

- Developed a dynamic predator-prey simulation in Java, displaying population interactions among lions, foxes, and rabbits within a custom GUI.
- Employed Agile methodologies to iterate on features, incorporate feedback, and collaborate throughout development.
- Employed object-oriented principles to structure class hierarchies for each animal type, facilitating clean, modular code.
- Leveraged graphical representations to visualize real-time population shifts and environmental impacts.

TECHNICAL SKILLS

Programming languages:

- Python, Java, C/C++, Golang, SQL, MongoDB, HTML, CSS, JavaScript - Node.js, PHP, Plait/Racket, Assembly (x86 processors).

Application program interfaces and libraries:

- Bootstrap, jQuery - Express, EJS, Jinja, Laravel, Flask, Mongoose, PyQt5, Visual Studio, GitLab, Spotify, Docker, Operating Systems**:** Windows, MAC OS, and Linux.

EDUCATION

The Pennsylvania State University, Abington, PA **Graduated December 2023**
B.S. in Computer Science Major GPA: 4.00 / Cum GPA: 4.00

Rowan College at Burlington County, Mount Laurel, NJ **Graduated May 2021**
A.S. in Computer Science Major GPA: 4.00 / Cum GPA: 4.00

PUBLICATION

The International Journal of Artificial Intelligence & Applications (IJAIA) **March 2024**
"Information Extraction from Product Labels: A Machine Vision Approach," with Vinayak Elangovan. International Journal of Artificial Intelligence & Applications, 2023.

- This paper presents a distinctive approach that combines CNNs and RNNs into a CRNN, integrated with Tesseract OCR, aimed at automating the extraction of information from product labels.