John Danekind

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EDUCATION

University of Colorado Boulder

Boulder, CO

Bachelor of Science in Computer Science, 3.66 GPA, 3X member of deans list

August 2022 - May 2025

Relevant Coursework

• Software Development

- Data Structures
- Algorithms
- Databases

• OOP design

- Introduction to AI
- Computer Systems Machine Learning
- Data Mining
- Data Science
- Cybersecurity

Experience

Software Engineer (Trimble Project)

September 2024 – Present

Boulder, CO

University of Colorado Boulder/ Trimble Inc.

- Architecting a multi-agent RAG (Retrieval Augmented Generation) application that analyzes complex geospatial, GPS, and service telemetry datasets for Trimble Inc.
- Engineering autonomous data ingestion pipelines that reduce manual data processing time by leveraging LLM technologies.
- Implementing scalable solutions using Python 3.x, Azure Cloud Services, LangChain, and LangGraph to automate data science workflows.
- Collaborating in an agile team environment to deliver MVP within tight project deadline.

PROJECTS

Transparent Brain Tumor Classification | Python, TensorFlow, Keras

October 2024 – December 2024

- Engineered a CNN-based medical imaging system achieving 97 percent classification accuracy on a dataset of 4,600
- Implemented Grad-CAM visualization techniques to provide interpretable AI decisions aligned with clinically relevant features by highlighting pixels in the image that informed the models final output.
- Optimized model performance through hyperparameter tuning and data augmentation techniques to achieve a final F1 score of 97 percent.
- Authored comprehensive 10+ page report on model architecture, training methodology, and deployment.

MancalaAI | Java, Gradle, GitHub

April 2024 – May 2024

- Built a playable GUI Mancala game with AI opponents, implementing MiniMax with Alpha-Beta Pruning for strategic decision making.
- In the hardest difficulty, the AI player won 99 percent of the time when simulating 10,000 games.
- Designed modular, scalable game architecture using OOP best practices, ensuring clean and maintainable code.

MindScribe | JavaScript, HTML, CSS, PostgreSQL, NodeJS, Docker, EJS

April 2023 – May 2023

- Engineered a AI-enhanced full journaling application integrating OpenAI's ChatGPT API, streamlining note taking for users.
- Designed and implemented relational database schema in PostgreSQL to manage user data securely as well as docker containers to streamline deployment and workflows.
- Managed project development using Agile methodology with GitHub Kanban boards for task tracking.

Technical Skills

Languages: Java, Python, C++, SQL (Postgres and MySQL), JavaScript, HTML/CSS

Frameworks and Tools: Node.js, JUnit, Express, React, SpringBoot, LangChain, LangGraph Cloud and DevOps: Git, Docker, Azure, VS Code, PyCharm, IntelliJ, JupyterHub, Conda

Data Science and AI: Pandas, NumPy, Matplotlib, Scikit-learn, TensorFlow

Volunteer / Extracurricular

Drumline Instructor

August 2024 - Present

Ascend Performing Arts

Denver. CO

- Instruct and mentor the snare section through personalized, one-on-one feedback to improve technical and performance skills.
- Develop and implement custom curriculum tailored to individual and group needs for optimal skill growth.