MICHAEL PECCIA

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SUMMARY

Recent Computer Science graduate with a strong foundation in mathematics and software development. Skilled in Python, SQL, NodeJS, and C++, with experience building full-stack, data-driven applications.

EDUCATION

Purdue University Northwest | Hammond, IN 2020 - 2024
Bachelor of Science in Computer Science | 3.25 GPA

WORK EXPERIENCE

SaferWholesale.com New Lenox, IL | 2019 - Present
Technician

- Applied automotive diagnostics and electrical troubleshooting to identify and fix mechanical/electrical faults efficiently with a variety of vehicles and machinery
- Provided technical support to customers and sales team, troubleshooting issues and performing maintenance tasks

David Dai Lab Hammond, IN | Spring 2024
AI Data Curator

- Developed a program in Python that tracks vehicle types and quantity with 92% accuracy on live, low quality camera feeds from Indiana traffic cameras via 511.org
- Implemented speed detection using fix reference points for distances and accounting for directional vehicle vectors
- Delivered product 7 months ahead of schedule while also adding additional features
- Full report here

PROJECTS (more available on GitHub)

Trading Chart
Language/Libraries/Tools: *ReactJS, NodeJS, Postgres, AWS*

- Integrated 7 backend REST APIs using Express library while protecting sensitive user data using encryption
- Implemented a web scraping task that captures stock quotes on regular intervals during market hours and stores to database
- Set up AWS instances of EC2 in Linux for server hosting and RDS using Postgres for database
- Designed and built a login and signup modal for the client in React

Market Order Book
Language: *C++*

- Implemented a traditional market order book that uses min and max heap data structures for bid and ask levels
- Built a matching engine function which job is to balance the book and it is invoked after any modification to the book such as a new order placement
- Utilizes important C++ concepts and features such as abstraction, encapsulation, polymorphism, inheritance, smart pointers, efficient use of data structures, iterators, etc.

SKILLS

- **Languages:** C++, Java, HTML/CSS, React, NodeJS, Python, SQL
- **Technology/Tools:** Git, Google CoLab, MongoDB, Postgres, Postman, AWS
- **Mental:** Calculus, Physics, Statistics, Problem Solving