

MICHAEL IWANEK

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EDUCATION

B.S - Computer Science, Oregon State University - School of Electrical Engineering and Computer Science 2022 - 2024
Major GPA: 4.0

Coursework: Discrete Math, CS 161/162, x86 Assembly, Web Dev, Data Structures

B.S - Business Administration (Accountancy), Sacramento State University 2017 - 2018

Major GPA: 3.94; Beta Alpha Psi VP of Info Systems Spring 2018; Graduated

SKILLS

Technical Skills React.js, Express.js, Node.js, MongoDB, C/C++, Python, JavaScript, Java, VBA Assembly x86, SQL
Software Axios, Postman, VS Code, PyCharm, Eclipse, Microsoft SQL Server Mgmt Studio, Git/GitHub, Excel

PROJECTS

Ski and Rock Climbing E-Commerce Store (MERN) - [GitHub](#) - [Live](#)

- A complex full-stack website (REI/Amazon clone) where users can search for products, add them to a cart, and submit/pay for an order with PayPal. An Admin dashboard allows for product/inventory management, and real-time statistics/user chats.
- Used the Paypal SDK and sandbox accounts to simulate live payments of orders by the website, sending order info to PayPal and marking an order as paid in the MongoDB database depending on the external API response.
- Implemented Socket.IO to allow for bi-directional client and server communication, to enable real-time messaging between a logged in admin and user. Used Redux for global state management and Bootstrap to develop React components.
- Modeled complicated database relationships between products, orders, and users using embedded MongoDB documents.

applyYourSelf - Job Application Tracker (MERN) - [GitHub](#) - [Live](#)

- Full-stack MERN web application that allows multiple users to track their job application history on one convenient website. Allows jobs to be searched, sorted by date, name, and categorized by application status with full CRUD functionality.
- A mobile responsive dashboard (React.js) presents statistical data visually via Bar & Sankey charts, showing which jobs led to subsequent interviews and monthly application counts. Detailed notes can also be added to each job's history.
- Features are implemented by several REST APIs (Express.js/Node.js); routes are protected so that users can only access their own data (JSON Web Token/ Axios Interceptors). User passwords are hashed to protect user privacy (brypt.js) in the MongoDB user database. Controllers/route handlers implement error handling, user authentication, and not-found middleware.

Ludo Game (Python) - [GitHub](#)

- Complex multi-player board game implementation featuring object-oriented design principles and extensive unit testing.

Hash Map Implementation (Python)- [GitHub](#)

- HashMap data structure implementation in Python, supporting get, put, and other methods built on top of a dynamic array. Table collisions are handled via Open Addressing (quadratic probing) in one class, Separate Chaining (linked lists) in another.

WORK EXPERIENCE

Senior Accounting Officer - Recon/Data Specialist

07 2020 - Present

CalSTRS - California State Teachers' Retirement System; CalPERS

Sacramento, CA

- Develop macros programmed in VBA for the entire accounting branch, automating data retrieval from SAP and manual Excel workpaper preparation. Saved tens of hours of monthly work for various teams, took ownership of development, implemented UIs in Excel with buttons and friendly user input to run programs, and fixed bugs that arose on request. Overhauled an existing VBA mainframe scraper to write/pull from different terminal sources, which streamlined various reviews by analysts.
- Prepare complex accounting reconciliations, interface testing, journal entries, and accruals for a pension fund with over 300 billion in assets, in a senior analyst role using SAP and Excel. Perform statistical analysis of monthly retirement distributions of 1.3 billion for errors and fraud, producing reports directly reviewed by senior management.
- Participate in the conversion of a legacy mainframe accounting system involving 2 billion records and 20 years of data. Developed advanced SQL queries to aggregate/summarize records, join tables, and analyze data sets for conversion errors.