Mike Hanson

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Education

Virginia Polytechnic Institute and State University Aug. 2021 – May 2025
B.S. Computer Science | ***GPA**: 3.52/4.0* *Blacksburg, VA*

- **Courses**: Data Structures, Computer Organization, Computer Systems, Cloud Software, Algorithms & Analysis
- **Honors**: Cum Laude, Dean's List: Spring 2022 - Spring 2025

Skills

Languages & Frameworks: Java, Python, C, C++, Node.js, React, FastAPI, Flask, Tailwind, OpenAI API
Development & Deployment: Docker, Git, AWS, Heroku
Database Tools: MongoDB, Supabase, PostgresSQL, Redis

Work Experience

Software Engineering Intern May 2024 – August 2024
WildShield Robots *East Fishkill, NY*

- Developed and maintained a high-throughput REST API endpoints capable of processing thousands of 5000+ requests per minute for real-time communication with robotic systems
- Engineered bidirectional data flow handling telemetry data from robots and command distribution to backend services, ensuring reliable performance under heavy concurrent load

Range Attendant May 2023 – August 2023
Par Fore Golf Center *East Fishkill, NY*

- Orchestrated operations and inventory management for a high-traffic golf facility
- Provided expert equipment consultation and technical recommendations to diverse clientele

Projects

AI Poker Game | https://aicehigh.netlify.app/ Spring 2025

- Launched a full-stack poker application leveraging FastAPI, React, and OpenAI API simulating realistic poker gameplay with AI opponents featuring distinct personalities and verbal commentary to enhance psychological reading skills
- Created No-Limit Texas Hold'em gameplay supporting up to 5 AI opponents from 10 unique personalities, with customizable opponent selection and hidden identity options for strategic variety and enhanced challenge
- Built comprehensive analytics system tracking player performance metrics and game statistics, enabling users to analyze gameplay patterns and refine strategies through detailed post-game insights

Fantasy Football App | https://chaosff.netlify.app/ Fall 2024

- Architected and deployed a full-stack fantasy football application using the FARM stack (FastAPI, React, MongoDB), featuring real-time NFL data collection through Celery workers and live draft functionality with WebSocket integration
- Implemented a scalable backend system supporting flexible league management (2-20 players) with automated data scraping, roster management, and real-time scoring updates for multiple concurrent leagues
- Designed a responsive React frontend with Tailwind CSS, incorporating live player statistics, matchup tracking, and waiver wire management, while ensuring seamless real-time updates across all user interfaces

Bullpen Budgets | https://github.com/mikehansonn/BullpenBudgets Spring 2024

- Developed a web-based MLB analytics platform tracking real-time bullpen statistics and pitcher workload data across all 30 teams; features automated daily updates and comprehensive performance metrics
- Created a scalable data collection system using Python and BeautifulSoup4 for web scraping, deployed via AWS Lambda and S3; delivered customizable dashboards for users to track favorite teams with comparative analysis and usage patterns

SPX Radar | https://github.com/mikehansonn/StockAnalysisEngine Fall 2023

- Built a Flask-based S&P stock analysis platform featuring real-time market data integration through yfinance API; delivers dynamic stock grades and 5-hour trend projections updated every 15 minutes
- Implemented an intelligent scoring system processing live market data to identify high-risk opportunities and actionable insights, while maintaining persistent data storage and reliable trend analysis