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

TECHNICAL 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 – Aug. 2024
WildShield Robots　　　　　　　　　　　　　　　　　　　　　　　*East Fishkill, NY*
- Developed and maintained a high-throughput REST API endpoints capable of processing thousands of requests per minute for real-time communication with robotic systems
- Implemented bidirectional data flow handling telemetry ingestion 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 | Demo URL　　　　　　　　　　　　　　　　　　　　　Spring 2025
- Developed a full-stack poker application using FastAPI, React, and OpenAI API that simulates realistic poker gameplay with AI opponents featuring distinct personalities and verbal commentary to enhance psychological reading skills
- Implemented 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 their gameplay patterns and refine strategies through detailed post-game insights

Fantasy Football App | Demo URL　　　　　　　　　　　　　　　　　　　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 | Demo URL　　　　　　　　　　　　　　　　　　　　　Spring 2024
- Developed a web-based MLB analytics platform that tracks 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 | Demo URL　　　　　　　　　　　　　　　　　　　　　　　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 that processes live market data to identify high-risk opportunities and actionable insights, while maintaining persistent data storage and reliable trend analysis