MICHAEL BAREN

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EDUCATION

Purdue University **August 2021 – May 2025**

Bachelor's of Science, Computer Science, Mathematics (GPA: 3.9 in major / 3.86 overall)

- **Achievements:** Honors College, Dean's List (Fall 2022, Spring 2023, Fall 2023, Spring 2024, Fall 2024), 8-semester member of the Athletic Director's Honor Roll and 4 time All B1G 10 Academic team.
- **Coursework:** Object-Oriented Programming, Systems Programming, Artificial Intelligence, Networking, Operating and Embedded Systems, Graphics, Numerical Methods in Computing, Algorithms

PROFESSIONAL EXPERIENCE

HirexHire | *Software Developer* **May 2023 – Present**

- Researched, built and tested a new Applicant Tracking System with a focus on scalable, full-stack design.
- Developed secure procedures for data retrieval and manipulation from a convex database while integrating robust API endpoints using Node.js.
- Designed an intuitive UI with responsive layouts to enhance user navigation and experience, aligning with modern frontend architecture principles.
- Engineered a custom API for file uploading and streaming to generate job descriptions with OpenAI, accelerating workflow efficiency by nearly 60%.
- Built a Notion-styled text editor for seamless viewing and editing of generated descriptions, showcasing advanced web development skills.
- Implemented AI-enhanced search functionality to accurately identify top candidate profiles, improving overall system performance.
- Delivered a marketable product that served as a central offering in the company's service portfolio.

ATHLETIC EXPERIENCE

NCAA Division 1 Athlete | *Cheerleading* **August 2021 – May 2025**

- Represented Purdue year-round at national competitions, football games, men's and women's basketball, women's volleyball games, high school clinics, and other community events.
- Managed 20+ hours/week training and competition while maintaining a 3.86 GPA.
- Developed strong leadership, time management, and team collaboration skills.
- Served as a peer mentor for first-year student athletes.
- Awards and Honors: Voted MVP by teammates at the Universal Cheerleading Association National Competition 2022 - 2023 season, All B1G 10 Second Team and B1G 10 First Year Only Team 2021-2022 season

PROJECTS

Personal Website **March 2025**

- Built with Next.js and hosted on Vercel.

Live Streaming System **February 2025 – April 2025**

- Network performance analyzer in python using the pyshark library.
- Created server and client containers with docker to isolate network activity while livestreaming.
- Manipulated network traffic using tc to simulate real world traffic within the docker containers.

Tile Match Game **March 2024 – May 2024**

- Written in Java using the Swing library to build the UI.
- Server-side code facilitates multiple open connections and maintains a global high score.
- Client-side code stores a turn history to allow for undo/redo actions and animates the sliding tiles.

Custom Shell **September 2023 – December 2023**

- Bash imitation written in C.
- Wrote a formal grammar which was converted into a parser using YACC.
- Implemented piping, forking, wildcards, and other shell operators.

TECHNICAL SKILLS

- **Programming Languages:** Java, Javascript, Typescript, C/C++, python, HTML, CSS, Matlab, SQL
- **Libraries/Frameworks:** Swing, React, Next.js, react-hook-form, NumPy, PyTorch, pandas, pyshark, convex
- **Other Tools/Environments:** Git, Docker, Node.js, VS Code, Linux, Xinu (OS for embedded systems), APIs