

Piotr Brozek

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EDUCATION

University of Illinois at Chicago | Chicago, IL

B.S. in Computer Science | GPA: 3.9/4.0

May 2026

Relevant Courses: Data Structures, Software Design, Programming Language Design, Programming Practicum

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Python, Java, SQLite, HTML/CSS, C/C++

Technologies & Frameworks: React, Docker, Vite, Next.js, Node.js, Express.js, MongoDB, TailwindCSS, Chakra UI

Tools & Platforms: Linux/Unix OS, VirtualBox, Valgrind, GoogleTest, GDB Debugger, Eclipse, IntelliJ, VS Code

PROJECTS

AI-Powered Stock Dashboard

Aug. 2024

- Implemented web scraping for about 50-100 news articles, filtering and feeding data to an AI server via Axios to generate stock predictions based on real-time news.
- Integrated NewsAPI and Finnhub API for live stock data and news analysis, utilizing Llama 3 for AI-driven insights.
- Developed a full-stack dashboard with a Node.js backend (Express) and a React frontend using TailwindCSS, Vite, and Chakra UI.

AI Chatbot

July 2024

- Developed an interactive AI chatbot using Llama 3 for natural language processing and intelligent conversation.
- Built a React-based frontend with JavaScript/TypeScript, JSX, and Chakra UI for a clean, responsive user interface.
- Implemented a Node.js and Express backend to manage API requests and communication with the AI model.

OpenStreetMap

May 2024

- Developed a mapping system using C++ with two hashtables to organize and store open-source map data.
- Implemented Dijkstra's algorithm on graph data to efficiently determine the shortest path between two points.
- Created a navigation tool for users to efficiently find routes around a campus environment.

EXPERIENCE

Undergraduate Researcher | Electronic Visualization Laboratory | Chicago, IL

Aug. 2024 - Present

- Collaborated with the software engineering team in weekly meetings to develop and enhance the SAGE3 software using TypeScript, JavaScript, React, and Docker.
- Assisted in implementing UI and AI features under the guidance of Research Professor Luc Renambot.

Full-Stack Developer Intern | Electronic Visualization Laboratory | Chicago, IL

June 2024 - Aug. 2024

- Developed and maintained multiple web applications, utilizing modern technologies such as ViteJS, React, TailwindCSS, NodeJS, and TypeScript to create responsive and dynamic user experiences.
- Designed and implemented innovative projects, including a movie website using Fetch API, an AI-powered chatbot, and a stock dashboard integrated with AI algorithms for real-time data analysis.