

Jake Kressley

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EDUCATION

University of Pittsburgh

Bachelor of Science - Computer Science

May 2026

GPA: 3.64/4.0

Coursework: Software Quality Assurance, Software Engineering, Programming Languages for Web Applications, Data Structures & Algorithms, Discrete Structures, Linear Algebra, Intro to Systems, Computer Organization & Assembly

EXPERIENCE

Software Engineer Intern

Advantex Learning Solutions

June 2024 – August 2024

Conshohocken, PA

- Led the development of interactive business acumen simulations in a cross-functional team, utilizing React and Bootstrap. Successfully transformed complex wireframes into high-fidelity deployed solutions, resulting in over 50 customer interactions.
- Conducted thorough black box testing and fine-tuning of over 10 existing simulations to ensure high standards of accuracy and reliability.
- Spearheaded a comparative analysis of four charting APIs and presented the findings to senior management, recommending the most effective solution, leading to streamlining data visualization processes and reducing development time for future projects.

Software Engineer Intern

Advantex Learning Solutions

June 2023 – August 2023

Conshohocken, PA

- Contributed to the development of business acumen simulations, acquiring in-depth expertise in advanced simulation design and implementation techniques.
- Executed thorough testing of multiple simulation pathways to evaluate their effectiveness and reliability, ensuring optimal performance and accurate outcomes across different scenarios.
- Extracted and transformed customer data from the backend into a user-friendly presentation format, ensuring that the data was accessible for client reviews

PROJECTS

JakeTube | *TypeScript, Next.js, Express.js, Docker, Firebase, Google Cloud*

- Created a YouTube clone app supporting user uploading and viewing using TypeScript and Next.js for a dynamic, responsive user interface, ensuring a seamless user experience.
- Implemented backend services allowing up to 10 GB in storage with Express.js, Firebase Functions, and Google Cloud Run, utilizing Google Cloud Pub/Sub for asynchronous communication and Google Cloud Storage.
- Utilized Firebase Auth for secure user authentication, allowing up to 50,000 document reads per day.

Reel Hot Takes | *TypeScript, React, TailwindCSS, FastAPI, MongoDB, BeautifulSoup*

- Developed a Python-based API with FastAPI and BeautifulSoup to scrape over 8000 movies from The Movie Database and gather Letterboxd user scores, seamlessly integrating with a React app and MongoDB for dynamic data retrieval.
- Leveraged TailwindCSS to streamline UI development and optimize frontend performance, incorporating react-toggle-dark-mode package for user-friendly dark mode functionality.

Movie Recommendation System | *Python, JupyterLab, Pandas, NumPy, Scikit-learn, DiffliB*

- Designed a movie recommendation system using a dataset of 5,000 movies, employing cosine similarity and TF-IDF vectorization to process features such as genres, keywords, tagline, cast, director, vote average, and popularity.
- Implemented data preprocessing and feature extraction using Python libraries (Pandas, Scikit-learn, DiffliB), ensuring accurate and efficient similarity computations and recommendations.

SKILLS

Languages: Python, Java, JavaScript/TypeScript, HTML/CSS

Technologies/Frameworks: Git/GitHub, Linux, APIs, React, MongoDB, Bootstrap, Tailwind CSS, FastAPI, Docker, Node.js, Express.js, Next.js