

Joseph Kurtz

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Education

The Pennsylvania State University | College of Engineering

Bachelor of Science in Computer Science | GPA: 3.77/4.00

Dean's List

Big Ten Distinguished Scholar Award & Academic All-Big Ten

Penn State Wrestling Academic Excellence Award

University Park, PA

Graduated May 2023

Fall 2019 – Fall 2022, Spring 2023

Fall 2020 – Fall 2021

Fall 2020

Skills

- JavaScript, React, NodeJS, ExpressJS, AWS, SQL, HTML, CSS, Python, C, PassportJS, Git, GitHub

Relevant Coursework

- Data Structures & Algorithms, Operating Systems, State Machines, Theory of Computation

Work Experience

Computer Management & Marketing Associates

Bethlehem, PA

Software Engineer Intern

June 2023 – September 2023

- Strengthened the performance and functionality of an application written in Virtual Basic.
- Optimized the system's data-import process by streamlining the code and improving data verification methods by utilizing SQL and VBA programming languages.
- Enhanced the application's user experience by meticulously documenting its purpose and functionality to facilitate more intuitive navigation.

Computer Technician Intern

June 2022 – August 2022

- Overhauled a campus-wide fleet of computers in preparation for the upcoming academic school year by resetting and reconfiguring systems using PowerShell.
- Crafted the plans to reconfigure the hundreds of computer operating systems effectively and efficiently within a short timeframe.
- Supervised and guided a small team of computer technicians.

Projects

Full-Stack Web Application

Easton, PA

Full-Stack Software Engineer

August 2023 – October 2023

- Showcased expertise in full-stack engineering by developing a secure To-Do-List web application utilizing React, ExpressJS, NodeJS, MySQL, and Amazon Web Services.
- Established the data store for the application by implementing a normalized SQL database.
- Implemented 800 lines of React code to develop the front-end and user interface.
- Developed 700 lines of ExpressJS code to create a RESTful API between the front-end and back-end.
- Ensured user-security and sensitive data protection by implementing features like JSON-Web-Tokens, session information, and encrypted passwords by utilizing Passport.js and the Node.js crypto library.
- Launched the application on Amazon Web Services (AWS) through domain acquisition, certificate procurement, and hosting on an EC2 instance seamlessly linked via an Application Load Balancer.

Personal Portfolio

Easton, PA

Web Developer

May 2023 – July 2023

- Demonstrated expertise in web design and development by creating a personal portfolio.
- Established the framework of the site by writing over 300 lines of HTML code.
- Wrote over 1200 lines of CSS code to enhance the visual appearance of the site for both the mobile and desktop site.
- Utilized Git and GitHub to publish the site online and simulate an industry-level project.

Virtual Memory Manager Group Project

University Park, PA

Systems Software Engineer

November 2022 – December 2022

- Engineered a virtual/physical memory manager, incorporating paging implementation and two replacement policies, utilizing the C programming language.
- Executed the code to establish, modify, and remove the linked lists, allocate space for the pages, and implement the "First In, First Out" and "Third Chance Replacement" replacement policies.