# Joseph Kurtz

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#### **Education**

The Pennsylvania State University | College of Engineering

University Park, PA

Bachelor of Science in Computer Science | GPA: 3.77/4.00 Dean's List

*Graduated May 2023* Fall 2019 – Fall 2022, Spring 2023

Big Ten Distinguished Scholar Award & Academic All-Big Ten

Fall 2020 – Fall 2021

Penn State Wrestling Academic Excellence Award

Fall 2020

#### **Skills**

o Programming Languages: JavaScript, React.js, Express.js, SQL, HTML, CSS, Python, C

## **Work Experience**

# **Computer Management & Marketing Associates**

Bethlehem, PA

Software Engineer Intern

June 2023 – September 2023

- o Strengthened the performance and functionality of a school application written in Microsoft Access.
- 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.
- O 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 MySQL, React.js, Express.js, and Node.js.
- o Established the data store for the application by implementing a normalized SQL database.
- o Developed the front-end and user interface using React.js, HTML, and CSS.
- o Implemented an API connection between the front-end and back-end using Express.js.
- 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.

## 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.

#### **Extra-Curricular Activities**

Penn State Division 1 Wrestling

o Competed for the number 1 nationally ranked NCAA Division 1 wrestling team.

#### Penn State Navy ROTC

Attained the distinction of ranking 3<sup>rd</sup> in my class through years of holding leadership positions, including serving as a squad leader, where I directed and supervised a team of more than 10 midshipmen.