

# JAMES DOH

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[Linked In](#) | [Github](#) | [Website](#) | [AWS Certification](#)  
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## EDUCATION

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

Expected May 2026

### BSE in Computer Science (Concentration in Artificial Intelligence)

- **GPA:** 3.95/4.0
- **Relevant Coursework:** Introduction to Computer Systems; Software Design and Engineering; Database and Information Systems; Introduction to Algorithms; Data Structures and Algorithms

## EXPERIENCE

SOUNDABLE HEALTH, Seoul, South Korea

Mar 2024-Jun 2024

### Software Engineer Intern

- Optimized a Python-based path-finding algorithm to efficiently detect all possible paths of geo-spatial maps by leveraging morphological processing and graph algorithms, reducing running time by an average of 90 seconds.
- Built and launched web-trial version of proudP [\[link\]](#) that analyzes users' urine sounds using AI and summarizes bladder health.

UNIVERSITY OF PENNSYLVANIA, Philadelphia, PA

Jan 2022-Apr 2022

### Teaching Assistant, Data Structures and Algorithms

- Led a 25-minute presentation for 50+ students on inductive analysis of recurrence relations and methods to find asymptotic runtime of code snippets, followed by Q&A from students.
- Facilitated accessible learning by leading weekly recitation, holding office hours, providing constructive feedback on student homework, and answering questions on Piazza.

SHAREIT, Lisbon, Portugal (remote)

June 2021

### Software Engineer Intern

- Created a React-based internal tool to efficiently manage employee data, such as leave days and payment details.
- Oversaw the project as Team Lead by delegating tickets to colleagues and presenting new features at weekly sprint meetings.

## PROJECTS

### C++ Web Server From Scratch

Aug 2024

- Collaborated with a teammate to design and implement a high-performance HTTP server in C++ that can handle multiple simultaneous requests.
- Prioritized a simple yet comprehensive web server that can manage dynamic paths and serve various assets, including HTML, CSS, and JS.

### JP Morgan Chase Software Engineering Virtual Experience

Aug 2024

- Built a live graph that displays stock data feeds and triggers alerts when correlations between two stock prices weaken, suggesting potentially-profitable trading strategies.

### Penn Free Food Exchange [\[Link\]](#)

Oct 2023-Feb 2024

- Developed a platform where students can share leftover food by pinning locations on the map with captions and images, fostering community-driven approach to reducing waste and supporting sustainability.
- Implemented a notification system that sends text messages to users when new listings are posted.

### String Search Algorithm Visualizer [\[Link\]](#)

Jan 2024

- Created a website that provides visualization of popular string-search algorithms, including Knuth-Morris-Pratt (KMP) and Rabin-Karp, by animating how text and pattern are compared at each iteration.

### Locus

Feb 2022-May 2022

- Directed the frontend development of the final group project for Software Design and Engineering, enabling Penn clubs to register, add members, and collaborate through task assignments and real-time messages.
- Delivered a well-tested codebase by writing comprehensive unit and end-to-end tests.

## OTHER DATA

- **Technical Skills:** Python, C/C++, AWS, SQL, Node.js, Django, Flask, Java, TypeScript, JavaScript, Next.js, React.js
- **Awards:** World Invention Creativity Olympic 2018, Gold medal (robot vacuum using LiDAR & ultrasonic sensors)
- **Interests:** cooking, magic tricks