James Doh

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LinkedIn | Github | Website | AWS Certification
60 Second Video About Me

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) — Jun 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