

David Zhan

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EDUCATION

University of Pennsylvania , Philadelphia, PA	May 2026
BSE in Computer Science (<i>AI Concentration</i>), MSE in Computer Science	GPA: 4.0/4.0
<ul style="list-style-type: none">• Coursework: Data Structures and Algorithms, Data Systems*, Operating Systems*, Machine Learning/AI*, Data Analysis*, Natural Language Processing*, Computer Vision* *Graduate• Involvements: Penn Aerial Robotics (Software Lead), Machine Learning Research @ Penn, Penn Club Soccer (Captain), Penn Club Badminton (Captain), Penn Flux (VP of Finance)• Minors: Math, Data Science	

EXPERIENCE

Software Engineering Intern <i>Ventoscity LLC</i>	<i>College Park, MD</i> June – August 2024
<ul style="list-style-type: none">• Redesigned a full-stack, cross-platform mobile app using Flutter, achieving 20% faster load times and reducing app size by 30% for improved user experience on both iOS and Android.• Integrated GPT-4-powered food scanning and analysis, accurately assessing portion sizes and fiber content with 90% accuracy across 100+ common foods.• Conducted extensive user testing with 50+ external participants, implementing over 25 usability improvements based on feedback, resulting in a 40% increase in user satisfaction scores and 15% reduction in crash rates.	
Frontend Software Engineer <i>keep.id</i>	<i>Philadelphia, PA</i> March – May 2024
<ul style="list-style-type: none">• Complete redesign of main landing page, leading to a 60% reduction in user-reported issues and significantly improving the backend document management process.• Developed responsive UI framework, optimizing interface layouts across various screen sizes.	
Research Intern <i>National Research Foundation</i>	<i>College Park, MD</i> June – August 2023
<ul style="list-style-type: none">• Developed a Swift-based mobile app designed to integrate with an emerging gut health start-up at UMD.• The app demonstration was pivotal in securing over \$1 million in VC funding over the next 3 months	
Mobile Developer <i>The Daily Pennsylvanian</i>	<i>Philadelphia, PA</i> January – Dec 2023
<ul style="list-style-type: none">• Implemented interstitial ads using React Native and Google AdMob to monetize app loading screens• Boosted DP+ mobile app revenue by over 20% during the ad campaign.	

PROJECTS

Blip <i>Next.js, TypeScript, Tailwind, Clerk, Convex</i>	September 2024
<ul style="list-style-type: none">• Short form audio platform which encourages micro-learning during transition times• Leveraged Cerebras and OpenAI API to aid user content generation• PennApps XXV: Best Entertainment Hack	
Ngram POS Tagger <i>Python, scikit-learn, pytorch</i>	October 2024
<ul style="list-style-type: none">• Hidden Markov Model-based POS tagger implementation• Incorporated Greedy, Beam Search, and Viterbi inference methods• Trained on Penn Treebank from WSJ; achieved 96.2% accuracy on randomized test set	
DavidDocs <i>Next.js, TypeScript, Tailwind, liveblocks</i>	June 2024
<ul style="list-style-type: none">• Real time collaboration system designed to streamline team productivity and document management• Implemented live commenting and integrated push notifications, increasing user interaction by over 50%.	

AWARDS

• PennApps XXV: Best Entertainment Hack	2024
• AIME Invitee (4 times)	2018-2022
• National Merit Scholar	2021

SKILLS

Languages: Python, Java, SQL, C / C++, Swift, Dart, JavaScript, Kotlin
Frameworks: React, Node.js, Next.js, TailwindCSS, TypeScript, Three.js, Bootstrap, Flutter, Django
Libraries: pandas, NumPy, Matplotlib, scikit-learn, TensorFlow, PyTorch, OpenCV