

BEN YOON

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Software Developer | Full-Stack | Python, Java, React | AI & Machine Learning | Passionate About Tech Innovation

EDUCATION

University of Pennsylvania (Penn)

Bachelor of Science in Engineering (B.S.E.) in Computer Science

Philadelphia, PA

Expected Graduation: May 2025

- Concentration: Artificial Intelligence | Minor: Electrical Engineering
- Relevant Coursework: Data Structures, Algorithms, Object-Oriented Programming, Web Development, Database Management, Operating Systems, Computer Networks, Software Engineering, Machine Learning, Artificial Intelligence

WORK EXPERIENCE

The Home Depot

Full-Stack; Software Development Intern

Atlanta, GA

May 2024–August 2024

- Developed an end-to-end application for managing and visualizing employee projects, set for production deployment, working cross-functionally with partner teams.
- Integrated Slack notifications into the application for real-time communication; conducted industry-standard testing ensuring robust and reliable performance.
- Enhanced application performance by 15% and reduced post-deployment bugs by 20%.
- Implemented secure user authentication and optimized database queries, improving data retrieval speed by 25%.
- Technologies Used: React, Node.js, Express, JavaScript, HTML, CSS, Slack API

Balloon Team; Penn Aerospace Club

Software Development Engineer

Philadelphia, PA

August 2023–Present

- Co-developed the Balloon Team's website using Node.js & Vue.js, boosting web traffic by 40%.
- Developed optimized tracking systems for high-altitude balloon crafts using RockBLOCK and embedded programming.
- Technologies Used: C++, Vue.js, Node.js, RockBlock

University of Pennsylvania Perelman School of Medicine

Software Development; Student Researcher

Philadelphia, PA

April 2023–Present

- Developed a GUI Web App using React and Flask for visualizing MRI data, reducing analysis time by 35%.
- Integrated interactive sliders, plot shifting, and dynamic selection of small 3D regions within MRI images.
- Led a team to deploy the App into production for public use by labs, enhancing research collaboration and data sharing.
- Published research on MRI coil construction with custom PCBs for conducting hyperpolarization research.
- Technologies Used: Python, React, Flask, AWS, RESTful APIs

KEY PROJECTS

Credit Card Fraud Detection

January 2024–May 2024

- Developed a predictive ML model using Python to detect fraudulent transactions, achieving an ROC-AUC score of 0.98.
- Utilized Dask for parallel computing, Scikit-Learn for model building, XGBoost for enhanced accuracy, and One-Hot Encoding. Designed data pipelines for real-time fraud detection and alerts, reducing false positives by 20%.

Social Media Application

February 2024–May 2024

- Built a scalable social media platform with real-time user interactions, featuring dynamic content updates and secure user authentication. Developed APIs with React, Node.js, and Express, and improved performance with WebSockets, boosting user engagement by 30%. Integrated cloud-based storage solutions for scalability and reliability.

PennOS

October 2023–December 2023

- Created a Unix-based OS in C, focusing on process scheduling, memory management, and file system operations.
- Implemented multi-threading and optimized I/O operations, enhancing system stability and performance.
- Collaborated with a team to debug and refine the OS kernel for improved resilience.

SKILLS AND INTERESTS

- Programming/code languages ☎ Python, C++, C, Java, JavaScript, Go, MATLAB, Ruby, Assembly language
- Web & app development ☎ PHP, React, Angular, HTML, CSS, Vue.js, Node.js, RESTful APIs
- Database & cloud management ☎ SQL, AWS, MongoDB, Azure, MySQL, GCP, Firebase
- Tools & frameworks ☎ GitHub, Git, Docker, JUnit, Pandas, NumPy, Matplotlib, Flask, Django, Figma, Valgrind
- ML skills ☎ Model Development, Feature Engineering, Hyperparameter Tuning, Deep Learning, A/B Testing, NLP
- Senior editor for The Daily Pennsylvanian | Cooking ☎ Reading ☎ Writing ☎ Biking ☎ Dogs ☎ Video gaming