# Junhyung Yoon

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## EDUCATION

#### University of California, Santa Barbara

Santa Barbara, CA

B.S. in Computer Science - GPA: 3.74

Expected Graduation: June 2027

- Relevant Coursework: Data Structures and Algorithms, Machine Learning, App Development
- Honors: Regents' Scholar, Engineering Honors, Dean's List

#### EXPERIENCE

Robotis

Jan 2025 – June 2025

Software Engineering Intern

Corona, CA

- Developed and programmed advanced robotic systems using the Koch v1.1 platform and ALOHA Manipulator. Implemented motion control algorithms with DYNAMIXEL actuators and optimized real-time teleoperations.
- Conducted research on state-of-the-art reinforcement learning and imitation learning techniques, integrating these methods into robotics workflows to enhance real-world applicability and system performance.
- Implemented AI models on NVIDIA Jetson edge devices, utilizing pretrained datasets and Hugging Face tools to develop, test, and deploy cutting-edge robotics solutions, while contributing to a growing AI-robotics community.

#### **UCSB Four Eyes Laboratory**

May 2024 - Present

Undergraduate Computer Vision Research Assistant

Santa Barbara, CA

- Developed a real-time simulation framework in Unity to replicate real-life latency scenarios in AR/VR systems, enabling realistic visual testing of user experiences under various lag conditions.
- Engineered advanced visual aids and interactive components using C sharp in Unity, enhancing the caliber and functionality of AR/VR simulations for research purposes and future real-world use.
- Designed and conducted user testing protocols to evaluate and optimize the effectiveness of the visual aids, leveraging iterative feedback to improve system performance and serviceability.

Cosmo Millennial May 2025 – Present

Software Engineering Intern

Remote

- Engineered a full-stack, AI-powered travel companion using JavaScript/TypeScript/HTML on the frontend and C#/.NET on the backend to plan user itineraries and output personalized recommendations.
- Architecting a conversational AI agent with context/state management and user-behavior learning, integrating LLM APIs and vector databases to deliver adaptive, real-time travel insights.

### The Paskin Group

March 2025 – June 2025

Machine Learning/Software Engineering Intern

Santa Barbara, CA

- Developed and fine-tuned machine learning models, including Linear Regression, Random Forest, and XGBoost, to provide market analysis insights and tailored business strategies for The Paskin Group's investment decisions.
- Scraped and cleaned large-scale datasets to uncover market trends and guide investment decisions; built AI-driven full-stack solutions to streamline lease applications, boost engagement, and optimize operations.

## Projects

 ${\bf CanvasClash} \mid {\tt Next.js, Tailwind \ CSS, Express.js, Node.js, TensoreFlow.js, Socket.io}$ 

Feb 2025 - March 2025

- Led a team to 3rd place in the ACM Winter Project Series by designing and developing a real-time multiplayer AI-powered drawing game, showcasing innovation in interactive gameplay and machine learning integration.
- Built a scalable room management system with Socket.io for 10+ lobbies and integrated TensorFlow.js in a Next.js frontend for real-time sketch recognition at 90% accuracy, improving user experience.

#### Diabetes Prediction Model | Python, NumPy, Pandas, scikit-learn

June 2024 - August 2024

- Developed end-to-end diabetes-prediction ML pipelines with Random Forest Decision Tree, leveraging NumPy Pandas for data preprocessing, algorithm execution, and GridSearchCV hyperparameter tuning.
- Created confusion-matrix and classification-metric (accuracy, F1, precision, recall, AUC-ROC) visualizations and feature-importance analysis; achieved 99.04% accuracy with Random Forest (tinyurl.com/3nma3nps).

## TECHNICAL SKILLS

Languages: Python, C++, JavaScript, Typescript, Go, C Sharp, HTML5/CSS, MIPS, Dart, Solidity, SQL Frameworks & Libraries: ReactJS, NodeJS, Angular, PyTorch, Pandas, Redux, TensorFlow, React Native, Oracle Developer Tools: Git, Google Cloud Platform, Firebase, Figma, Jupyter, Linux, Docker, Gradle, MongoDB, Excel