

Ryan Bascos

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EDUCATION

University of California, Irvine

B.S. in Computer Science and Engineering

June 2025

GPA: 3.810

Relevant Coursework: Artificial Intelligence, Machine Learning and Data Mining, Algorithms and Data Structures, Software Engineering

TEACHING EXPERIENCE

iD Tech | Irvine, CA

Jun 2024 - Jul 2024

VR Game Design with Unity and Meta Quest Instructor

- Taught C# programming and VR game development in the Unity Engine to students ages 10-17.
- Assisted students with debugging projects and troubleshooting hardware and software issues.

RESEARCH EXPERIENCE

OctoPath Lab | Irvine, CA

Aug 2024 - May 2025

Artificial Intelligence Research Intern

- Evaluated performance of multiple instance learning models to classify treatment responsiveness in whole slide images of tumors.
- Studied materials on artificial intelligence methods for segmentation of pathology slide images for use in classification models.

UCI Institute of Transportation Studies | Irvine, CA

Oct 2023 - May 2024

Machine Learning and AI Researcher

- Created denoising autoencoder neural network with Pytorch in Google Colab Notebooks to reduce noise in vehicle trajectory data.
- Used NumPy and pandas to extract data from NGSIM dataset and Matplotlib to display results in organized graphs.

CONFERENCE PRESENTATIONS

“AI Applications in Vehicle Trajectory Data Smoothing,” SoCal AI Responsibility Summit 2024 at UCLA. Los Angeles, CA, 2024.

“AI Applications in Vehicle Trajectory Data Smoothing,” UROP Symposium at UCI. Irvine, CA, 2024.

AWARDS

Audience’s Choice for Most Innovative Project – Awarded to my research team at the SoCal AI Responsibility Summit 2024 for receiving the most votes from attendees.

PROJECTS

Live Service Game Web App | Irvine, CA

Aug 2025 - Present

Full Stack Developer

- Built a full-stack web application using React and TypeScript with Firebase Authentication, Cloud Functions, and Firestore Database.
- Deployed frontend on AWS S3 + CloudFront.

Classification Model Study | Irvine, CA

Mar 2025 - Jun 2025

Co-Developer

- Created a feedforward neural network and decision tree in PyTorch to predict sentiment of IMDb movie reviews.
- Recorded performance versus complexity and training set size by graphing results using Python and Matplotlib.

Crux Compiler | Irvine, CA

Apr 2024 - Jun 2024

Co-Developer

- Co-developed a compiler for the Crux programming language using Java.
- Applied visitor pattern to implement abstract syntax tree, type-checking, intermediate representation, and x86 assembly code generation.
- Authored grammar file for ANTLR4 parser generator based on Crux grammar written in Wirth syntax notation.

Sudoku Solver | Irvine, CA

Jan 2024 - Mar 2024

Co-Developer

- Co-developed a sudoku board solver in Python for a dynamic range of board sizes using a constraint network and heuristic search.

Project: Ether | Remote

Jul 2023 - Apr 2024

Technical Producer

- Monitored development progress for coding, UI/UX, level design, and audio departments using Airtable.
- Planned sprints, managed project scope, and coordinated with team members to meet production deadlines while ensuring quality.

UI and Gameplay Programmer

- Designed and programmed UI elements of the main menu, how to play screen, and art gallery.
- Implemented hitboxes, animation, and projectile behavior for 4 attacks from 2 playable characters.

SKILLS

Programming Languages: Python, JavaScript, TypeScript, C++, C#, C, Java, HTML, CSS, SQL, Bash, RISC-V Assembly, x86 Assembly

Softwares: React, Node.js, AWS S3, AWS CloudFront, PyTorch, Matplotlib, Unity, .NET, Godot, GitHub

Soft Skills: Communication, Leadership, Organization, Problem Solving, Perseverance

HONOR SOCIETIES

Tau Beta Pi | Irvine, CA

Member

- Invited by having a GPA in the top 20% of all engineering students in Senior standing.
- Completed initiation requirements and became an official member.

REFERENCES

Jana Lipkova, Assistant Professor

School of Medicine

Department of Pathology

Department of Biomedical Engineering

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University of California

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Wenlong Jin, Professor

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