

# ARMIN IRVIJE

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## EDUCATION

### University of California, Davis

June 2024

*Bachelor of Science, Computer Science*

**Selected Coursework:** Introduction to Machine Learning, Deep Learning, Object Oriented Programming, Data Structures and Algorithms, Probability & Statistics for Computer Science, Modern Programming Tools

**Skills:** Python, Pytorch, Java, C, C++, HTML, CSS

## PROJECTS

### [Simple Shell](#) | OS Project

- Developed a C-based custom shell program, implementing essential command-line functionalities such as tokenization, parsing, command execution, output redirection, and piping
- Enhanced debugging and testing strategies, utilizing comprehensive test cases to ensure robust error handling and command parsing

### [NBA Points Predictor](#) | Hackathon Project

- Created a web application for predicting NBA players' future points per game using regression modeling with pandas, numpy, Flask, and scikit-learn
- leveraged statistical analysis of historical performance data to inform training, team strategies, and player evaluations

### [Convolution NN](#) | Deep Learning Project

- Designed and trained convolutional neural networks using PyTorch for image classification tasks on ORL, MNIST, and CIFAR-10 datasets
- Optimized CNN architectures with various hyperparameters, including kernel sizes and padding, achieving an accuracy of 98%
- Utilized advanced techniques such as ReLU activation, max pooling, and Adam optimization

## EXPERIENCE

### Machine Learning Intern (remote)

San Diego, CA

*Laboratory for Pathogenesis of Clinical Drug Resistance and Persistence*

April 2024 - Present

- Currently developing an ML classification model for identifying DNA bases and their modifications by implementing a Siamese neural network
- Conducting extensive parameter tuning and optimization to achieve high model performance, including experimenting with various learning rates, batch sizes, and network configurations
- Tools used: Python, Pytorch, Numpy, GitLab

### Program Assistant

Davis, CA

*AvenueE- Support and enrichment scholarship program for engineering students*

August 2023 - September 2023

- Mentored a group of ten students on their completion of the engineering microcontroller project, that simulates a feature of a modern vehicle
- Played a key role in organizing and facilitating AvenueE's orientation program, coordinating lab tours, delivering professional development workshops, and fostering community through social events

### Computer Science Intern (remote)

Dublin, Ireland

*Sports Impact Technologies - Startup that develops a wearable sensor to monitor head impacts*

June 2023 - August 2023

- Developed a website from inception to completion, through self-taught HTML and CSS, articulating the company's mission, showcasing product features, and enabling customer engagement through email input forms
- Initiated the creation of the web portal by utilizing Figma and wireframing techniques to outline the design.
- Presented website project details and methodologies to colleagues remotely, highlighting steps taken, learned concepts, and problem-solving strategies employed.