# **ARMIN IRVIJE**

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#### **EDUCATION**

#### University of California, Davis

June 2024

Bachelor of Science, Computer Science

**Coursework & Organizations:** Introduction to Machine Learning, Deep Learning, Object Oriented Programming, Data Structures and Algorithms, Probability & Statistics for Computer Science, Phi Gamma Delta, AvenueE **Skills:** Python, Pytorch, Java, C, C++, HTML, CSS, Git, VSCode

#### **EXPERIENCE**

#### Machine Learning Intern

San Diego, CA

Laboratory for Pathogenesis of Clinical Drug Resistance and Persistence

April 2024 - Present

- Currently developing an ML model for identifying DNA bases and their modifications using a siamese neural network
- Conducting extensive data preprocessing, parameter tuning, and optimization to achieve high model performance, including experimenting with various learning rates, batch sizes, and network configurations
- Leveraging GPU clusters to accelerate training and model evaluation, significantly reducing computation time
- Tools used: Python, Pytorch, Numpy, GitLab

## 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.

#### **Student Council Treasurer**

Helsingor, Denmark

International Peoples College - Folk school where classes are taught from a global perspective

January 2022 - June 2022

- Implemented a Java program to monitor the student council budget, ensuring accurate recording of deposits and withdrawals, resulting in efficient financial management
- Led a diverse team of students from around the world in organizing a successful fundraiser event, fostering collaboration and cross-cultural communication
- Acted as a representative of the student body, speaking in front of the school board to advocate for student needs and present financial reports

#### **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 CIRFAR-10 datasets
- Optimized CNN architectures with various kernel sizes and padding, achieving an accuracy of 98%
- Utilized advanced techniques such as ReLU activation, max pooling, and Adam optimization