

# William Hsieh

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## Education

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### University of California, Los Angeles (UCLA)

*M.S. Computer Science*

**Exp. Jun 2025**

- GPA: 3.67/4.00
- Coursework: GPU Microarchitecture, IoT, Natural Language Processing, Reinforcement Learning, Computational Genomics

*B.S. Computer Science*

**Jun 2024**

- GPA: 3.75/4.00
- Coursework: Computer Architecture, Computer Security, Data Structures and Algorithms, Databases, Deep Learning (Computer Vision, Neural Networks), Networks, Neural Signal Processing, Operating Systems, Programming Languages, Software Engineering, Statistics

## Work Experience

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**Werfen** | *Software Engineering Intern, R&D*

**Jun 2023 - Sep 2023**

- Lead software internationalization process for blood clot detection devices
- Documented Linux VM development environment setup and wrote test cases for full app workflow
- Implemented dynamic language switching using C++, Qt Creator and Qt Linguist
- Wrote script for converting XML translation files to user-friendly files using Python
- Performed software verification and integration testing of features using Python
- Worked in Agile environment, conducted code reviews and created end-of-sprint demos

## Projects

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**Deep Learning** | *PyTorch, CNN, RNN, Transformers*

**Mar 2024**

- Trained a model for 3D human mesh recovery from video and compared with other naive techniques
- Studied dense prediction, object detection, and various backpropagation and optimization methods
- Achieved 75% accuracy in motion prediction from EEG data using deep CNN and RNN models

**VR Authentication** | *Python, RNN, Unity*

**Feb 2024**

- Trained an RNN to classify VR users based on movement data from the Oculus Quest 2
- Achieved 93% accuracy for classification with 1 second of movement data, and 99% within 5 seconds
- Applied security concepts such as machine unlearning and dataset poisoning into RNN architecture

**Autonomous Drones** | *Python, Fusion 360*

**Jan 2023 - Mar 2023**

- Modeled and built an autonomous drone from scratch with custom 3D-printed and laser-cut parts
- Mapped autonomous flight plans with MAVSDK-Python utilizing onboard sensors and data
- Led team of 4 in autonomous flight development and iterative design processes

## Skills

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**Languages** | Python, C++, C, Verilog, SQL, JavaScript

**Frameworks/Libraries** | Qt, PyTorch, TensorFlow, NumPy, scikit-learn, pandas, PostgreSQL

**Other** | Unix, Git, Gerrit Code Review, Jira, Agile, Figma

## Activities

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**ACM Design** | *Co-President*

**Sep 2020 - Apr 2024**

- Led workshops for UI/UX, 3D modeling and vector art with class size of 50-60 members
- Designed graphics for all ACM sub-committees and initiatives
- Managed "Westwood Sans" project and created custom display font for club