

# EERO GALLANO

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## EDUCATION

### UC BERKELEY

BACHELOR'S IN COMPUTER SCIENCE  
August 2018 - Dec 2020

GPA: 3.76 / 4.0

### ORANGE COAST COLLEGE

COMPUTER SCIENCE TRANSFER  
August 2016 - May 2018

GPA: 3.84 / 4.0

## LINKS

[github.com/gallanoe](https://github.com/gallanoe)

[linkedin.com/in/eerogallano](https://linkedin.com/in/eerogallano)

## COURSEWORK

### SWE

Operating Systems

Database Systems

Programming Languages and Compilers

Parallel Programming

Software Engineering

Algorithms

Data Structures

Machine Structures

### AI/ML

Artificial Intelligence

Machine Learning

Deep Neural Networks

Natural Language Processing

Probability and Random Processes

Convex Optimization

Theoretical Statistics (Graduate)

Game Theory

## SKILLS

### PROGRAMMING

Python • Java • C • C++

Javascript • HTML/CSS • SQL • bash

Elm

### TECHNOLOGIES

PyTorch • Tensorflow • AWS Ecosystem (EC2,

S3, Sagemaker)

Node.js • IntelliJ • Visual Studio

### OTHER

Data visualization • Web scraping

## PERSONAL PROJECTS

### STONKS DATA VISUALIZER

A local desktop application that computes, models, and visualizes various statistics of selected stock market data. Built using Python back-end and Plotly Dash + CSS front-end.

Repo link: [github.com/gallanoe/stonks](https://github.com/gallanoe/stonks)

### HANGMEN ONLINE MULTIPLAYER GAME

A web application that turns Hangmen into an online multiplayer party game. Built using

Nodejs back-end and Elm + CSS front-end. Link: [hangmen.io](https://hangmen.io)

## COURSE PROJECTS

### RELATIONAL DATABASE SYSTEM DATABASE SYSTEMS

Implemented a fully functional database that optimizes queries by implementing the underlying indexing structures, query iterators, join algorithms, cost estimation, query optimization, and concurrency control, etc., for a SQL relational database. Database was built using Java.

### CHOCOPY COMPILER PROGRAMMING LANGUAGES AND COMPILERS

Implemented a compiler for the ChocoPy language, a statically typed dialogue of Python 3.6, for the RISC-V ISA by implementing the parser, lexer, and code generation portions of a compiler. 1st place in four of five categories in a compiler performance tournament. Compiler was built using Java.

### PINTOS OPERATING SYSTEMS

Implemented elements of a modern operating system such as fairer task scheduling, synchronization variables, system calls, cached file systems, etc. The OS was built using C.

## RESEARCH PROJECTS

### SIGNAL PROCESSING METHODS FOR NOISE-RESISTANT CNNs

#### DEEP NEURAL NETWORKS

Worked in a group of three to design and test image preprocessing methods to protect state-of-the-art mobile architectures against noisy and adversarial inputs. Used Python and PyTorch to load and test method designs.

### USING INTERACTIVE PARTICLE SYSTEMS TO MODEL SPREAD OF MISINFORMATION PROBABILITY AND RANDOM PROCESSES

Worked in a group of three to model the spread of misinformation using interactive particle systems and ran simulations of the model to test hypothesis concerning containment of misinformation. Used Python with SimPy and NetworkX libraries.

Link: [github.com/gallanoe/mis-sim](https://github.com/gallanoe/mis-sim)

## EXTRACURRICULAR ACTIVITIES

### PILIPINX ASSOCIATION OF SCIENTISTS, ARCHITECTS, AND ENGINEERS (PASAE) COMPUTER SCIENCE REPRESENTATIVE INTERN

Reached out to recruiters and past PASAE alumni to establish connections for job opportunities, tech tours, and related resources specifically for Filipino students working in STEM fields.

### OCC DATA SCIENCE AND AI CLUB MEMBER

Convened weekly to explore topics in machine learning and data science.