

# Ethan Wagner

Last Updated on 13th October 2022

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## Education

CALIFORNIA POLYTECHNIC STATE UNIVERSITY

MS IN COMPUTER SCIENCE

BS IN COMPUTER SCIENCE

BS IN BIOMEDICAL ENGINEERING

ASIAN STUDIES MINOR

GPA: 3.69

📅 Currently Enrolled 📍 San Luis Obispo, CA

## Coursework

### COMPUTER SCIENCE

Artificial Intelligence

Algorithms

Data Structures

Theory of Computation

Systems Programming

Object-Oriented Programming

Computer Architecture

Digital Design

Programming Languages

Technology Ethics

Statistics

### BIOMEDICAL ENGINEERING

Fluid Dynamics

Thermodynamics

Biomechanics

Biomaterials

Signal Analysis

Transport Phenomena

## Skills

### PROGRAMMING

Python (scikit-learn, pandas, BERT-server) • Java

• C • SystemVerilog • HTML/CSS

• RISC-V Assembly • TypedRacket

• JavaScript (React, Node.js) •

TensorFlow

### SOFTWARE TOOLS

VS Code • Figma • GitHub • Visual

Studio • MongoDB • PyCharm •

IntelliJ IDEA • ~~TeX~~ • DrRacket •

Microsoft 365 • G Suite • Ubuntu

## Academic Honors

CALIFORNIA POLYTECHNIC STATE UNIVERSITY

Dean's List: 11 quarters

President's List: 3 years

## Relevant Experience

### SOFTWARE/RESEARCH INTERN

TREES

📅 Jan 2021 – Mar 2021

📍 San Luis Obispo, CA

- Fixed bugs and added new functionality to an existing code base in Dart with the Flutter programming environment
- Researched potential applications and experimented with OpenAI's GPT-3
  - Synthesize research, construct how-to guide, and chat bots

### COMPUTATIONAL MODEL FOR VISUAL FIELD

STUDENT RESEARCHER

📅 Sept 2022 – Current

- Construct a computational model for vision
  - Simulate the processing and perception of light and images
  - Induce a high-resolution phosphene image in an organism's visual field through electrical stimulation
- Research is being done with Dr. Mugizi Rwebangira

### INVESTIGATIONS AND IMPLEMENTATION OF MAPPING TEXTUAL DEBATE USING CURRENT NLP MODELS

STUDENT LEAD

📅 Apr 2022 – Current

- Utilize Python to
  - Organize and create data sets
  - Implement, train, and interface with BERT model
- Generate data sets with the assistance of GPT-3
- Overall goal is to make web maps of transcribed debates
- Research is being done with Dr. Lubomir Stanchev

### WEBSITE/APP DEVELOPMENT PROJECTS

CO-PARTNER

📅 June 2020 – Current

- Worked with Visual Studio, SQL SMS, JavaScript, and C to design and construct a university scheduling website
- Designing a social networking website with HTML/CSS in Figma related to philosophy and debate
- NFT project generation executable

## Leadership

EMERGING LEADER SERIES (ELS)

Completed a Cal Poly sponsored, quarter-long course in refining leadership skills and how to apply them on campus in Winter 2020.

COMPUTER ENGINEERING MENTOR

Fostered a relationship with four CPE freshmen to answer questions about academic, career, and personal topics in Winter 2021.

INSTRUCTIONAL STUDENT ASSISTANT

Assisted in promoting student success during class and office hours for Computer Architecture (Winter, Spring 2021) and Digital Design (Fall 2021).

CENTER FOR MILITARY CONNECTED STUDENTS - CAL POLY

Assisting students with questions about certifying military benefits or Cal Poly and Veteran Affairs resources (Fall 2019 - current).