

# Kazem Ayat

Address

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## Research Interests

I am in love with physics and astrophysics/astronomy. I like to participate in theory or experimental researches. My interests are but not limited to Astronomy, cosmology, biophysics, nuclear physics, atomic physics, AI physics, and plasma physics. I love to use physics and find applications in the real world. I love to add something good to this world with my physics :)

## Education

### University Of California: Berkeley

Berkeley, Ca

In progress bachelor's degree of Physics

Expected Graduation date: By the End of

Fall 2023

- Quantum Mechanics 1 (137A) —4 units
- Math Methods for Physics students (89) —4 units
- Analytical Mechanics (105)—4 units
- Quantum Mechanics 2 (137B)—4 units
- Instrumentational Laboratory and electronics (111A)—4 units
- Python Decal (Astron 89)—2 units
- Advanced Physics Laboratory (111B)— 3 units in progress
- Statistical Mechanics (112) — 4 units in progress

### West Valley College

San Jose, Ca

Associate degrees in Physics and Mathematics

AUG 2018 - April 2021

## Research and Work Experience

### University of California: Berkeley (Research at Prof. Imke de Pater Group )

Berkeley, Ca

Analyzing the Uranus' Rings

SEP 2021 - Current

- Data Analysis
- Aperture Photometry
- Coding
- Fits File Masking
- **Technical Skills:** Python with Photutils, NumPy, Matplotlib, Pandas, Astroquery, astropy
- **Soft Skills:** Teamwork, Time Management, Communication, Presentation skills.

### West Valley College— Instructional Lab Technician (Lab tech assistant)

San Jose, Ca

Physical Science Department of the West Valley College

Jan 2019 - August 2021

- Designed and constructed new laboratory apparatus for physics labs and classroom demonstrations
- Created exercises for students based around new laboratory apparatus
- Assisted students with troubleshooting technical problems during physics labs
- Fits File Masking
- Organized and maintained a physics stockroom (with astronomy and geology rooms)
- Setting up the labs for students
- Mini in-lab research

## Projects

### Python Decal End of Semester Project: Simulating a Foreign Planetary System

UC Berkeley, CA

UC Berkeley

OCT 2022 - DEC 2022

- Developing a team-based project to simulate a foreign planetary system containing one star and five planets
- Leading and managing the team (consists of 5 members).

### Morse transmitter and receiver

UC Berkeley, CA

UC Berkeley

Nov 2022 - DEC 2022

- Created a circuit with many subvi's to transmit morse code using an LED.

## **Skills**

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<b>Python Programming</b>	Well experienced in Python (Pandas, NumPy, matplotlib, scipy, astropy, etc
<b>LabView Programming</b>	Well experienced in LabView programming.
<b>Latex</b>	LaTeX proficiency
<b>C Programming</b>	Experienced in C programming.
<b>Linux, Kali Linux</b>	Experienced in Linux and Kali Linux
<b>Java Programming</b>	Well experienced in Java programming
<b>CSS/HTML/JavaScript</b>	Some Experiences in CSS/HTML/JavaScript.
<b>SAOImage DS9</b>	Image Processing and data visualization application
<b>PCB Design</b>	PCB design, and Kicad software skills
<b>Soft Skill</b>	Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation.

## **Complete Later**

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## **Languages**

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<b>English</b>	Fluent
<b>Persian</b>	Fluent

**References available upon request.**