

# ARMANUL AMBIA

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## EDUCATION

### California State University - Fullerton

Bachelor of Science Major in Computer Science / Minor in Mathematics Expected Graduation Date: May 2023 GPA: 4.0

## PROFESSIONAL EXPERIENCE

### Southern California Edison (SCE), Pomona, CA

System Planning and Coordination Intern

May 2021 – August 2021

- SCE's solar analysis relied on data collected over five years ago and experienced inaccuracy due to climate, infrastructure, and commercial development
- Directed the **collection and extrapolation of new 2020 data** from SCE's Photovoltaic (PV) circuits
- Coordinated IT and backend data teams to address data and circuit-specific anomalies
- Developed **Python scripts using Pandas, NumPy, Matplotlib** to run numerical statistics, percentile analysis, reliability calculations, and find max PV activity
- Formulated a new ten-year solar forecast ensuring high-quality solar energy and facilitated **SCE's transition to 100% renewable energy by 2045**

### NASA Kennedy Space Center (KSC), Merritt Island, FL

NE-XS Software Intern

January 2021 – April 2021

- Developed Software in the NE-XS division that **directly impacts the launch of Artemis II in 2023**
- During rocket launches, firing room displays maintain high standards of **readability, versatility, and data generation**
- Antiquated firing room software relied on inefficient 3<sup>rd</sup> party software
- Engineered a completely redesigned graphic engine using **open-sourced Java Swing and JavaFX libraries**
- Presented my engine with working prototypes of existing displays to highlight **enhancements in display functionality, readability, speed, and efficiency**
- **Achieved and documented a novel functioning Display Engine** for further development in preparation for Artemis II

### The Boeing Company, Huntington Beach, CA

Engineering Practicum High School Intern

June 2018 – August 2018

- **Developed a cost-effective model** for fighting California Wildfires using **Systems Tool Kit software**.
- Researched fire-fighting equipment, climate change, available resources per capita, and long-term sustainability
- Recommended a standard set of air carriers and task force sizes that project a savings of **\$200,000 per year**

## SKILLS

**Programming Languages** Python, C++, Java, GIT, HTML, CSS, JS, SQL, PHP

**Libraries** Pandas, Tkinter, SciPy, Pygame, Matplotlib, NumPy, SFML C++, MySQL

**Development Tools** Microsoft Excel, R/ R Studio, Eclipse, Visual Studio, Linux Terminal, Systems Tool Kit, SQL Developer

## PROJECTS

**STL Complexity Analysis** Documented comparison of efficiency in Vectors, Maps, Binary Trees, Doubly and Singly Linked Lists

**Sorting Visualizer** Visualizer for studying Bubble, Selection, Insertion, and Merge Sort Algorithms in C++ SFML library.

**Personal Website** Portfolio created from scratch using HTML, CSS, and JS, [armanambia.github.io](https://armanambia.github.io)

**TEDxCSUF Website** Website for student organization using HTML, CSS, JS, and PHP, [tedxcsuf.org](https://tedxcsuf.org)

**Running Database** Database created with Java GUI/ Swing libraries and polymorphic behavior for Cross Country Coach

## EXTRACURRICULAR EXPERIENCE

### President's Scholar, Fullerton, CA

Scholarship Recipient and Mentor

August 2019 – Present

- Prestigious full-ride scholarship **recognizing exemplary service, leadership, academic excellence**
- Serve as an ambassador for CSUF at service, social, and sponsorship events on campus and in the local community
- Volunteered in local food kitchens, conducted park cleanups, and provided mentorship to underclassmen

### TEDxCSUF, Fullerton, CA

Executive Vice President

December 2019 – Present

- Creative platform for CSUF students and faculty encouraging expression and cultivating ideas through public speaking
- **One of 3 founding members** in December 2019 and grown the organization to **over 200 students and professionals**
- As Vice President, I **created the organization's website (tedxcsuf.org)** and **oversee fourteen committees**.