

# Melvin Boateng

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## EDUCATION

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<b>University of the Pacific</b> – Stockton, CA	Degree Expected: <b>12/2027</b>
Master of Science, Computer Science	
Bachelor of Science, Computer Science	3.85
<i>Minor in Media X</i>	

### Relevant Coursework:

**Discrete Mathematics, Data Structures, Application Development, Intro. to Computer Science, Statistics, Physics, Topics in Renewable Energy, Design/Analysis of Algorithms, Computer Game Technologies, Virtual Reality, Secure Software Systems, Computer Systems & Networks, Computing Theory (IP), Data Analytics Programming (IP), Database Management Systems (IP), Storytelling and Visualization (IP), Human/Brain Machine Interface (IP)**

## EXPERIENCE

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<b>Science Olympiad</b> , Stockton CA	<b>February 2023 – May 2023</b>
<b>Treasurer</b>	

- Helped establish the club at Weston Ranch high school
- Managed finances, organized fundraisers for Science Olympiad Club

<b>Climate Change Research</b> , Stockton CA	<b>January 13, 2025 – June 2, 2025</b>
<b>Assistant</b>	

- Analyzed papers about the use of renewable energy and optimization models
- Evaluated effectiveness and applicability of various models for an optimization renewable energy portfolio
- Constructed research paper discussing harms and potential improvements of climate change through optimization models and government policies
- Developed an optimization model on MATLAB that focuses on producing minimal carbon emissions while meeting electricity demands

## PROJECTS

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<b>A New Adventure</b>	<b>Summer 2023</b>
<b>Objective:</b> To create a foundation for an open-world MMORPG on ROBLOX utilizing Lua & Blender	

- Created a team to develop games on ROBLOX
- Generated a project schedule and organized team meeting documents
- Collaborated to designate specific tasks required to develop games including User Interface, 3D models, and programming.

**Text Based Bank****April 2024****Objective:** To create a Bank using C++ (on Replit) that responded to user inputs

- Created a Bank Class
- Created a Customer class that held information typical of a bank account holder (i.e. First & last name, SSN)
- Created a Bank Account class that (called the Customer Class to open the Bank Account and) kept track of a person's account with a unique number and gave the user a variety of actions
- Created Savings & Checking Account classes that the user could create that would also have a unique corresponding number
- Each Bank Account would also receive a \$100 bonus for creating their first Savings Account

**Monster Battle****October - December 2024****Objective:** To create a 2D game similar to Pokemon with a team utilizing Java and Github

- Had a team with 4 other people
- Used MindView to setup a Gnatt chart, reports, and a schedule of when we would complete tasks for the group
- Used Github to push and pull code for collaboration
- Used Lucid to establish our UML
- Created multiple classes to handle Badges, Bag, Battle, Graphics, Healing Center, Items, Map, Monsters, Actions, Player Trainer, Opponent Trainer, Shop, Space, Species Type, and Tile according to our UML and what was needed (setters + getters)
- Used Paint.net and AI to create images and icons

**Summoner Simulator****October - December 2024****Objective:** To create a 2D game similar to Pokemon with a team utilizing Java and Github

- Had a team with 4 other people
- Used MindView to setup a Gnatt chart, reports, and a schedule of when we would complete tasks for the group
- Used Github to push and pull code for collaboration
- Used Lucid to establish our UML
- Created multiple classes to handle Badges, Bag, Battle, Graphics, Healing Center, Items, Map, Monsters, Actions, Player Trainer, Opponent Trainer, Shop, Space, Species Type, and Tile according to our UML and what was needed (setters + getters)
- Used Paint.net and AI to create images and icons

**Renewable Energy Portfolio Website****October - December 2024****Objective:** To create a 2D game similar to Pokemon with a team utilizing Java and Github

- Had a team with 4 other people
- Used MindView to setup a Gnatt chart, reports, and a schedule of when we would complete tasks for the group
- Used Github to push and pull code for collaboration

- Used Lucid to establish our UML
- Created multiple classes to handle Badges, Bag, Battle, Graphics, Healing Center, Items, Map, Monsters, Actions, Player Trainer, Opponent Trainer, Shop, Space, Species Type, and Tile according to our UML and what was needed (setters + getters)
- Used Paint.net and AI to create images and icons

## A Hero's Journey

August - October 2025

**Objective:** To create a 2D game similar to Pokemon with a team utilizing Java and Github

- Had a team with 4 other people
- Used MindView to setup a Gnatt chart, reports, and a schedule of when we would complete tasks for the group
- Used Github to push and pull code for collaboration
- Used Lucid to establish our UML
- Created multiple classes to handle Badges, Bag, Battle, Graphics, Healing Center, Items, Map, Monsters, Actions, Player Trainer, Opponent Trainer, Shop, Space, Species Type, and Tile according to our UML and what was needed (setters + getters)
- Used Paint.net and AI to create images and icons

## SKILLS

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- Proficiency: Word, PowerPoint, Lucid, MindView, Paint.net, Adobe Firefly, GitHub, and Google Docs
- Programming languages: Lua, Java, C++

## ADDITIONAL EXPERIENCE

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- Co-curricular Activities
  - Include:
    - Varsity Soccer
    - Key Club
    - Science Olympiad
    - Athletics

**Job Duty:** Game Development

**Accomplishment:** Completed a prototype of a game on ROBLOX with furnished movement and dynamic lighting. Created a variety of common outside objects as well as character models on Blender to be utilized on ROBLOX or other game creation platforms.