

# Bolaji Makinde-Odusola

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## EDUCATION

**California Polytechnic State University**, San Luis Obispo, CA  
Bachelor of Science **Electrical Engineering, Computer Science Minor**

Expected Graduation Date: **June 2021**

**Major GPA 3.3**

## PROGRAMMING LANGUAGES AND SOFTWARE

**Programming Languages:** C#, C++, Java, JavaScript, Python

**Software:** Unity, MATLAB, Blender, Google SketchUp, 3DS Max, Maya, Unreal, OpenGL, Visual Studio, AutoCAD, DipTrace

## PERSONAL PROJECTS

### Open Source Chess Engine Development:

**2018-Present**

- Created a platform for answering and analyzing statistical based chess questions
- Led and taught a team of 3 by organizing meetings and assigning work to develop several chess engines
- Used bitwise operations for visualized AI and neural network algorithms on the user interface
- Integrating Photon Voice SDK to allow for speech-based play and simulation

### Traveling Salesman Problem Convex Hull Triangulation Algorithm:

**2016-2017**

- Researched and theorized a convex hull approximation of the Traveling Salesman Problem
- Developed a 100% physically based model for calculations by using scalable measuring algorithms
- Used research and high levels of geometry to come up with an algorithm for the Traveling Salesman Problem
- Translated **JavaScript** project into **C#** as measured by **5000% reduced calculation speeds** through modular updates

### Unity Multiplayer FPS Game Development:

**2012-Present**

- Set up and deployed complex techniques needed to create a reliable network system in **C#** and **JavaScript**
- Tailored and invented optimization methods by using optimized data structures for different game instances
- Self-taught 4 languages and have experience translating self-developed project designs into code
- Reduced overall 3D pathfinding calculation and loading time by 80% while adding instant dynamic priority system

## WORK EXPERIENCE

**Boeing**, Oklahoma City, OK: Electromagnetic Effects Intern under Keith Chappell

**Jun-Sept 2019**

- Published and certified 3 Quality Control Documents for technology meeting internal and DoD standards
- Collaborated with multiple departments in developing plans for aircraft electronic system modifications
- Organized and tracked revisions for the Electronic Products team in important release documents for aircrafts
- Researched and compiled data into Boeing Libraries for new modification projects

## HONORS AND AWARDS

- **1<sup>st</sup> Place out of 25 teams** of Track for SLOHacksGO with a public speaking simulator and assistant **Nov 2019**
- Elijah McCoy African American Engineering \$100,000 Scholarship for 5 years (Merit Based Full-Ride)
- Project Black Excellence in Scholarship and Teaching Award (Leadership)

## LEADERSHIP AND TEAM BASED EXPERIENCE

**National Society of Black Engineers:** Regional Executive Board, Parliamentarian

**Mar 2019-Present**

- Organized the first Fall Regional Conference vote in the past 5 years of Region VI history
- Organized and headed a town hall to vote on and discuss issues facing black engineers for several hundred people
- Oversee and engage with all NSBE chapter senators in the 13 most western states
- Point of Contact for NSBE Bylaws and Parliamentary Procedure

**JPMorgan Code for Good Hackathon**, Jersey City, New Jersey

**Sept 2019**

- Used **HTML** and **CSS** to embed a constructed external application on a developed multi-platform website
- Created scalable framework for integration of other external applications

**CSUB STEM Summer Program**, Bakersfield, California

**May-Aug 2016**

- Devised script in **C++** to optimize robotic arm maneuvering speed
- Launched mobile web interface for tracking and manipulating real-time radio frequencies and eliminating noise

## INTERESTS AND INVOLVEMENT

**Organizations:** Color Coded, Chess Club (Secretary), Game Development Club

**Hackathons:** HackDavis, SLOHacksGo, YHacks, DubHacks, JPMorgan Code for Good

Poly Cultural Weekend Host and Volunteer, San Luis Obispo, CA

**2018-Present**

Chess Opening Theory Instructor, Bakersfield, CA

**2015-Present**

International Chess Club Opening Teacher, Bakersfield, CA

**2018**

Dartmouth Bound Program, Dartmouth University, Hanover, NH

**2016**