

SOMBIRI ENWEMEKA

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EDUCATION

M.S Information and Data Science | University of California, Berkeley, May '18 GPA: 3.7

B.S. Computer Engineering | Missouri University of Science and Technology, May '09
Minor Computer Science



EXPERIENCE

Senior Backend Engineer | Octopus Energy

2021 – 2022 | REMOTE | HQ LONDON, UK

- Designed and implemented the billing system for US customers
- Developed integration for EV charger and home appliance energy scheduling
- Implemented push notifications for IoT control software

Lead Software Engineer | Britecore

2019 – 2021 | REMOTE | HQ SPRINGFIELD, MO

- Rewrote software for generating demo instances
 - Developed a wizard to replace the manual site creation process
 - Created sample insurance products
 - Replaced fuzzed customer data with generated examples
- Developed and maintained APIs and API standards across different micro-services

Engineering Contractor | Enwemeka Engineering

2016 – 2019 | EL SEGUNDO, CA

- Lead Software Engineer at Second Order Effects: firmware development using C, Python, etc
 - In-space camera and checkout system
 - Lighting and animation for Consumer Electronics Show (CES)
 - Portable air purifier: Bluetooth firmware for main unit and remote
- College Track Boyle Height's robotics coach
 - Wrote grant applications: Acquired \$4000 in grants to conduct team operations
 - Support and teach underrepresented high school students in East Los Angeles to succeed in STEM through building, coding, and testing robots for FIRST Tech Challenge
 - Advanced to SoCal league championships in rookie season

Avionics Integration Engineer | SpaceX

2011 – 2016 | HAWTHORNE, CA

- Dragon Spacecraft Re-Usability Responsible Engineer (RE)
 - Created the avionics qualification and reuse plan
- Avionics Responsible Engineer for Dragon cargo resupply missions (CRS) 1, 4, 7, and 11
 - Integrated avionics systems to deliver functional launch ready spacecraft
 - Resolved integration and testing issues, Implemented system changes
 - Wrote, ran, and conducted reviews for vehicle checkout procedures and processes
- Dragon Systems Mission Operator (SYS1) – Dragon spacecraft flight operations
 - Maintain nominal flight with NASA mission control and SpaceX mission operators
 - Communicate Dragon system health and intended operations to NASA
 - Memorized Dragon avionics system, fault tolerance, commanding, flight procedures, expected behavior, etc.



PROJECTS

Skin.ai – Berkeley MIDS capstone, a predictive analytics app which detects whether a given cosmetics product will increase a user’s likelihood of acne

- Implemented backend architecture, data pipeline, automated testing, and machine learning model
- Built a distributed web scraper to collect information on over 70,000 products and 8,000 ingredients
- Set up database for customer data, products, and ingredients

Hard to Count – Data visualization of populations which will be under-represented in the 2020 census

- Analyzed and cleaned data from various government sources to create visualization candidates
- Built the project website – http://people.ischool.berkeley.edu/~sombiri/final_proj/



SKILLS

- Electronics
- Continuous Integration / Unit testing
- Database technologies SQL • noSQL ex. MongoDB
- Software debugging, memory and process inspection
- Data analysis: Pandas • R
- Day and swing trading • Back-testing
- Real-time processing
- C/C++ and Python
- API and Web development: Docker • DOM • GraphQL • CSS • PHP • JavaScript • Django
- Data visualization plotly • matplotlib
- Software version control: Git • SVN
- Cloud computing • AWS • SoftLayer • Google Cloud
- Hands-on building and fabrication
- Aerospace manufacturing and verification



PUBLICATIONS

Journal

Laser Physics Letters

Lasers in Surgery and Medicine
Volume 40:734-737, Dec, 2008

Photomedicine and Laser Surgery
Volume 27:221-226, April 2009.

Title

The Relative Effects of 405 NM and 470 NM Light on Methicillin Resistant Staphylococcus Aureus (MRSA) In Vitro

Visible 405 NM Light Photo-destroys Methicillin Resistant Staphylococcus Aureus (MRSA) In Vitro

470 NM Blue Light Kills Methicillin Resistant Staphylococcus Aureas



ACTIVITIES

- Motorsports – Karting, motorcycle time attack, and autocross
- Exercise and fitness
- Volunteer work