Simeon BABATUNDE

Career Summary

A second year PhD student in Computer Science with a background in embedded systems, software and data engineering. Interested in building tools and technologies that enable tiny batteryless sensors to power intelligent IoT. Working towards becoming a research leader in the emerging fields of AI and IoT.

Professional Experience

PERSIST Research Lab, Clemson University, SC

Aug. 2017 - Present

Graduate Research Assistant

- Researching efficient communication protocols for tiny batteryless sensors.
- Lead research efforts on networking for intermittently powered devices.

School of Computing, Clemson University, SC

Aug. 2017 – Oct. 2018

Graduate Teaching Assistant

- Lead TA for CPSC 1071 (Programming Techniques and Methodology).
- Topics include program design and implementation techniques, program testing and verification, structured programming, basic data structures and analysis of algorithms using C and C++.
- Hold laboratory sessions, office hours, and coordinate other TA's in ensuring seamless content delivery.
- Lecture instructor: Catherine Hochrine.

Venture Garden Group, Lagos, NG

Dec. 2015 – Jul. 2017

Data Engineer

- Developed and managed the first Enterprise Data Hub (EDH) built on Apache Hadoop ecosystem.
- Powered the data driven governance initiative in Nigeria through advanced analytics.
- Identified business problems to be solved with analytics and communicated findings to business decision makers.
- Won the first data science boot camp competition.

Splashers Technologies Ltd. Lagos, NG

Aug. 2014 – Nov. 2015

Software Developer & Data Analytics Researcher

- Team Lead, Mobile Application Development. Won the Outstanding Contribution to Consolidation Goals Award, October 2015.
- Developed the first mobile solution for financial settlement among key stakeholders within the Nigerian power sector.
- Ensured new members of the mobile development team were trained and mentored on adoption and utilization of key technologies used by the team.

Academic Qualifications

Clemson University, Clemson, SC
 Doctor of Philosophy, Computer Science

2017 – 2021 (Anticipated)

• Obafemi Awolowo University, Ile-Ife, NG

Sep. 2014

Bachelor of Science, Computer Engineering

First Class Honors, CGPA of 4.6 on a 5.0 scale. Second best CE student.

• Federal Polytechnic Ilaro, NG

Sep. 2008

National Diploma, Electronics and Electrical Engineering
Distinction, 3.8 CGPA on a 4.0 scale. Graduated as the best EEE Student.

Selected Technical Skills

- Programming Languages: Proficient in C, Python, Java; comfortable with R, C++, and SQL.
- **Tools and Technologies:** Autodesk Eagle, TI MSP430, Software Defined Radio, Hadoop, Apache Spark, Sqoop, ELK stack (ElasticSearch-Logstash-Kibana), Hive, Pig, Kafka, Flume, Scikit-learn, StreamSets Data collector, Jupyter Notebook, Android, Nodejs, Django, Flask and LaTeX.
- Version Control Systems: Git, Subversion and Mercurial.
- **Certifications:** Data Science Specialization, Johns Hopkins University (Coursera).

Recent Projects

- **Python 2.7.x Interpreter:** Implemented in C/C++ using flex and bison (<u>Github</u>).
- **UV Risk Detection and Prevention:** A wearable device that informs the user about the current and cumulative UV rays exposure level (<u>Github</u>).
- **Private Object Detection in Images using YOLO:** A private and public object detection program built on yolov3 and darknet (<u>Github</u>).
- **Packet Sniffing and Spoofing:** A sniffer and spoofing program implemented using pcap library and raw socket in C (<u>Github</u>).
- **Clemson Gameday Queue Warning System:** A customized queue warning system modeled using software verification and validation tools (AADL) and techniques (<u>Github</u>).
- **Autonomous Line Following Robot:** Built with the most basic electronic components (<u>YouTube</u>).

Relevant Coursework

- Embedded Networked Systems - Advanced Operating Systems - Software Verification, Validation and Measurement - Translation of Programming Languages - Security in Emerging Systems

Extracurricular Experience

- **Upsilon Pi Epsilon (CS Honor Society):** Participated in the outreach program (robotics and coding camp) for elementary students at Forest Acres Elementary, Easley.
- Association for Computing Machinery (ACM): Student member (8949491).
- Black Graduate Student Association, Clemson: Active member.
- School of Computing Graduate Students Association (Clemson): Active member.