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Immerse yourself in the dynamic workshops led by our extraordinary 2022 faculty

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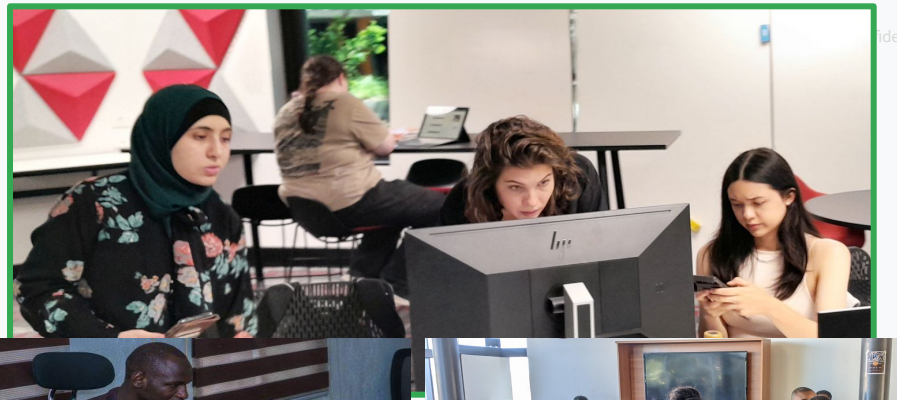

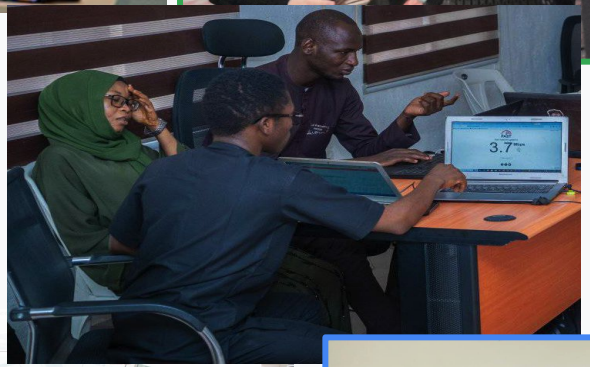

Bayero University Kano

Arewa Data Science Fellowship

Professors Ibrahim Said Ahmad, Shamsuddeen Hassan

Program Summary: We recruited and trained under-represented groups (~50 fellows) on machine learning and research skills.

Objectives: We guide students in (1) Learning key tips on how to learn new skills and knowledge. (2) Learning basic data science and machine learning skills (3) Learning key tips on conducting research in computing (4) Identify and apply to competitive postgraduate positions.

Successes: (1) Our fellows participated in SemEval competition and their paper was accepted and published. (2) Our fellows participated in the Cohere Hackathon competition. (3) A fellow secured a competitive PhD position.

Challenges: Many of our fellows faced challenges with participating in virtual classes due to power outage or internet connectivity.

Program Insights & Takeaways: Having regular one-on-one interactions even among mentees greatly reduces the dropout rates in professional virtual classes.

HausaNLP at SemEval-2023 Task 12: Leveraging African Low Resource TweetData for Sentiment Analysis

Saheed Abdullahi Salahudeen[1], Falalu Ibrahim Lawan[1], Ahmad Mustapha Wali[2], Amina Abubakar Imam[3], Aliyu Rabiu Shuaibu[4], Aliyu Yusuf[5], Nur Bala Rabiu[6], Musa Bello[1], Shamsuddeen Umaru Adamu[1], Saminu Mohammad Aliyu[6], Murja Sani Gadanya[6], Sanah Abdullahi Muaz[6], Mahmoud Said Ahmad, Abdulkadir Abdullahi[7], Abdulmalik Yusuf Jamoh[8]

♈HausaNLP, [1]Kaduna State University, [2]University of Bucharest, [3]University of Abuja, [4]Nile University, [5]Universiti Teknologi PETRONAS, [6]Bayero University Kano, [7]Shehu Shagari College of Education, [8]Ahmadu Bello University, Zaria

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Abstract

We present the findings of SemEval-2023 Task 12, a shared task on sentiment analysis for low-resource African languages using Twitter dataset. The task featured three subtasks; subtask A is monolingual sentiment classification with 12 tracks which are all monolingual languages, subtask B is multilingual sentiment classification using the tracks in subtask A and subtask C is a zero-shot sentiment classification. We present the results and findings of subtask A, subtask B and subtask C. We also release the code on github. Our goal is to leverage low-resource tweet data using pre-trained Afro-xlmr-large, AfriBERTa-Large,

analysis has been done in high-resource languages (Jha et al., 2016; Vilares et al., 2016; Heikal et al., 2018; Elhadad et al., 2019; Abdullahi et al., 2021; Carvalho and Plastino, 2021) while several low-resource African languages receive little attention in Natural Language Processing (NLP) application due to insufficient of publicly available data. Although, recently, some considerable efforts are made for the development of sentiment analysis for some low-resource African languages (Devlin et al., 2018; Yimam et al., 2020; Ogueji et al., 2021; Abubakar et al., 2021; Muhammad et al., 2022), nonetheless, sentiment analysis for low-resourced African languages still is a misrepre-

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Pohang Institute of Science and Technology (POSTECH)

Career workshop for female graduate and undergraduate students to encourage them to pursue academic careers in EECS
https://explorecsr.postech.ac.kr/
Professor Hyojin Sung

Program Summary: We held a one-day career workshop with student research talks/posters, invited speakers, mentoring lunch, panel discussions, and a dinner banquet.
Objectives: (1) Increase students' interest in research careers in computer science and electrical engineering, (2) Connect students with their peers, mentors (from both industry and academia), and faculty at POSTECH, (3) Provide opportunities for students to present their research and get feedback, (4) Have a lot of fun with the girls!
Successes: As the first workshop for historically underrepresented students at POSTECH, we had a >90% turnout on the workshop day, a 94% satisfaction rate, and very positive comments from the post-event survey (all survey responders said yes to attending next year's workshop).
Challenges: (1) Finding mentors and speakers from the industry, (2) drawing more attention and audience to research poster sessions, (3) mentor-mentee matching with similar research interests, (4) organizing the program for both UG/G students
Program Insights & Takeaways: (1) Encourage interactions between students and mentors, (2) Utilize online event apps, (3) Open to other schools

The University of Calgary

AI Research School

Drs. Farhad Maleki & Katie Ovens

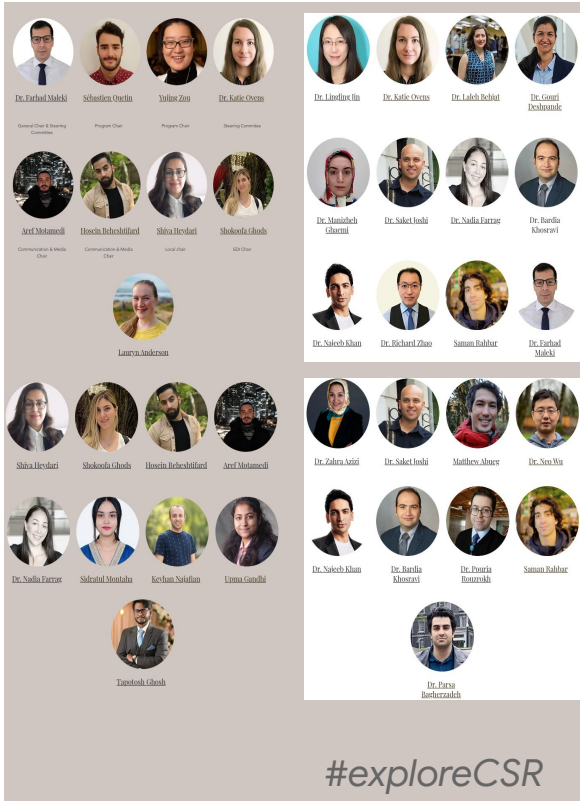
Program Summary: The AI Research School (AIRS) is an online program promoting AI research involvement among equity deserving groups through hands-on learning, mentorship, and real-world research experience.

Objectives: The program has two phases. In phase one, students have the opportunity to (1) gain hands-on experience with machine learning and deep learning research, (2) interact with current highly successful graduate students and postdocs from underrepresented groups who utilize AI for their research, and (3) gain mentorship from academia and industry researchers. In phase two, students have the option to participate in an AI research project alongside mentors to get some first-hand research experience.

Successes: 71 students graduated from phase 1; 15 teams (3-5 students per team) participated in phase 2. We also initiated an AI Research club, as a student club.

Challenges: Long-term programs per semester, overlap with exams.

Program Insights & Takeaways: Distributing the program in the first month of each semester would facilitate participation..



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Escuela Superior Politécnica del Litoral
ESPOL University

ExploreCSR 2023 Workshop: Introduction to IA for CS and non-CS students

Dr. José Córdova

Program Summary: This exposed students to ML and DL concepts, research workshops, interactive demos, and researchers experience in industry and academia. (60 students, 75% students from non-CS major)

Objectives: Support students in: 1) increasing research opportunities involving students from CS and non-CS majors in applied ML, 2) providing introductory practical skills in applied ML building up from programming fundamentals through tools that can be used in an undergrad research experience. 3) expose students to research career paths in applied ML and guidance for graduate school.

Successes: Students from 12 different majors, low dropout rate during the workshop, IA and research skills development in students from non-CS majors.

Challenges: Workshop design contemplating the knowledge gap between CS and non-CS students.

Program Insights & Takeaways: Interactive AI project demos and gamification improve students' engagement during the workshop.

Programa Internacional ExploreCSR, auspiciado por Google, se realiza por primera vez en Ecuador

Mar, 25/04/2023 - 13:15

Un grupo de **60 estudiantes** que pertenecen a **12 carreras de la ESPOL** son parte del **Programa ExploreCSR**, organizado por la **iniciativa Smart X** de la **Facultad de Ingeniería en Computación y Electricidad (FIEC-ESPOL)**, que agrupa a profesores, investigadores y estudiantes de distintas ramas que tienen interés en **Machine Learning** y sus aplicaciones.

Esta iniciativa es auspiciada por **Google Research**, la división de investigación de **Google**, para impulsar que estudiantes de cualquier carrera se involucren en temas de investigación vinculados con áreas de Computación.

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Benedict College

Collaborative Program to Promote Undergraduate Computing Research

Professors Hong Jiang, Qi Zhang

Program Summary: This initiative implemented a series of workshops to introduce and promote HBCU students to computing research (100+ students)

Objectives: We aim to: 1. Build students' self-efficacy and a sense of belonging by guiding students to identify their potential and motivate them to explore their vision and passion; 2. Teach and mentor students with practical research skills through service-learning and/or REU research projects. We expect at least 70% of students will complete student-faculty co-designed research projects; 3. Expose students from the targeted group to the latest computing research; 4. Encourage and prepare students from the targeted group to apply to graduate schools in computing.

Successes: Instead of the targeted 40 students, 100+ students from different majors participated in our events and demonstrated interest in computing research; Faculties from diverse backgrounds showcase the various aspects of computing research; Connection with UofSC brings eye-opening experiences for our students on research and graduate school application and more potential opportunities.

Challenges: Student attendance is inconsistent; We started but didn't have enough time to complete faculty-mentored service-learning research projects this semester.

Program Insights & Takeaways: Faculties from diverse backgrounds showcasing the different aspects of computing research inspire and increase students' interest in computing research.

Website: https://sites.google.com/view/bc-uofsc-explorecsr/

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San Antonio College

Enhancing Participation in Computing Research Pathways through Cross-Institutional Near-Peer Mentorship

Dr. Henry Griffith

Program Summary: This initiative implemented various curricular and extracurricular activities to promote participation in research computing at San Antonio College (~30k students, ~ 67% latinx)

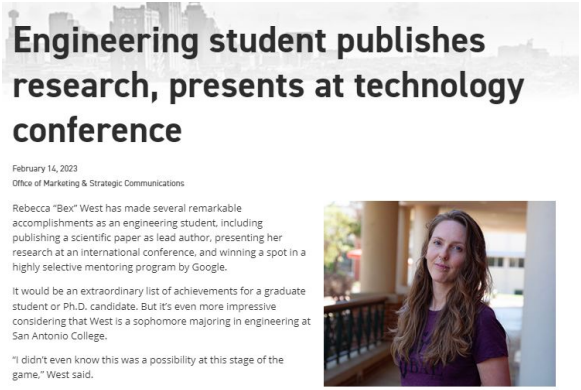
Objectives: Increase students' self-efficacy and interest in research computing pathways through various interventions, including - 1) redesigning Intro to ENGR to a research computing course-based undergraduate research experience (CURE) model 2) providing opportunities for students to participate in computing research and design competitions, and 3) creating a novel transfer bridge program to improve transfer student success in ECE/focus on post-BS participation in research computing pathways (multi-year, post-transfer initiative)

Successes: Implemented two CUREs in Intro to ENGR in AY 22/23, launched a student-lead hour of code workshop, organized Summer 23 pilot transfer bridge program with UTSA, had two team submission to NSF/AACC CCIC, initiated follow-up grant submission to NSF IUSE Innovation in Two-Year College STEM Education program (Dec 23 submission)

Challenges: Limited facility access to support full portfolio of initiatives

Program Insights & Takeaways: Integrating research computing concepts at the two-year level accelerates interest in post-grad pathways, enhances self-efficacy

VR demo at student-lead weekly hour of code event



Engineering student publishes research, presents at technology conference

February 14, 2023
Office of Marketing & Strategic Communications

Rebecca "Bex" West has made several remarkable accomplishments as an engineering student, including publishing a scientific paper as lead author, presenting her research at an international conference, and winning a spot in a highly selective mentoring program by Google.

It would be an extraordinary list of achievements for a graduate student or Ph.D. candidate. But it's even more impressive considering that West is a sophomore majoring in engineering at San Antonio College.

"I didn't even know this was a possibility at this stage of the game," West said.

Student publication at IEEE ICCE Asia in wearable computing

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Macquarie University, Sydney Australia

Ready for Research *An Early Intervention to Encourage Research Careers*
Professor Matthew Roberts

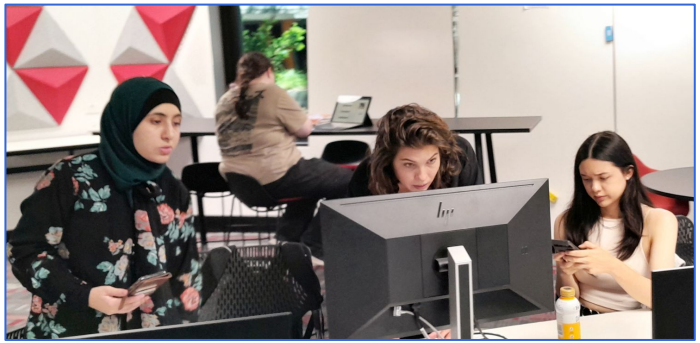
Program Summary: Female students from all years of University (biased to first-year) are invited to a three-day workshop where they learn how to train a model with TensorFlow and deploy that model on a Raspberry Pi. Students choose a field classification task and execute it. Talks and visits from female research professionals.

Objectives:. Increase the student's self-confidence in technical skills, networking, provide an introduction to research fields, expose students to research-based career paths.

Successes: Alumni at Google and in research programs. Alumni return to mentor. Program has expanded into high-schools.

Challenges: Attracting students to the program. Keeping alumni in research programs (the job market is very good).

Program Insights & Takeaways: Technical topics are popular. Networking and self-confidence are key. Critical-mass creates opportunities of its own. Ongoing effort required. Senior women inspire undergrads. Find the good students as early as possible, everyone is looking for them.



University of Tennessee, Knoxville

Diversity in Cybersecurity for Appalachian Undergraduate Students

Doowon Kim

Program Summary: We plan to hire Appalachian undergraduate students for summer internships and hosted a workshop for them.

Objectives: Our goal is to provide undergraduate students in the Appalachian region and culture (East Tennessee) with substantial cybersecurity education opportunities such as summer research internships. These opportunities can help them pursue graduate studies in cybersecurity.

Successes: In progress

Challenges: Lack of colleges in Appalachian region and lack of undergraduate students. (Low population) For the second year, I plan to expand to West Virginia and Southern Virginia in Appalachia

Program Insights & Takeaways: Undergraduate students in Appalachian region barely know about out-of-state life and graduate studies. We need to keep them informed about the google life in CA and graduate studies (e.g., what's the benefits after getting Ph.D.).

Curious about the student experience?

Learn how Kean University computer science students Eric Ponte and Xavier Amparo want to change the face of pill detection...

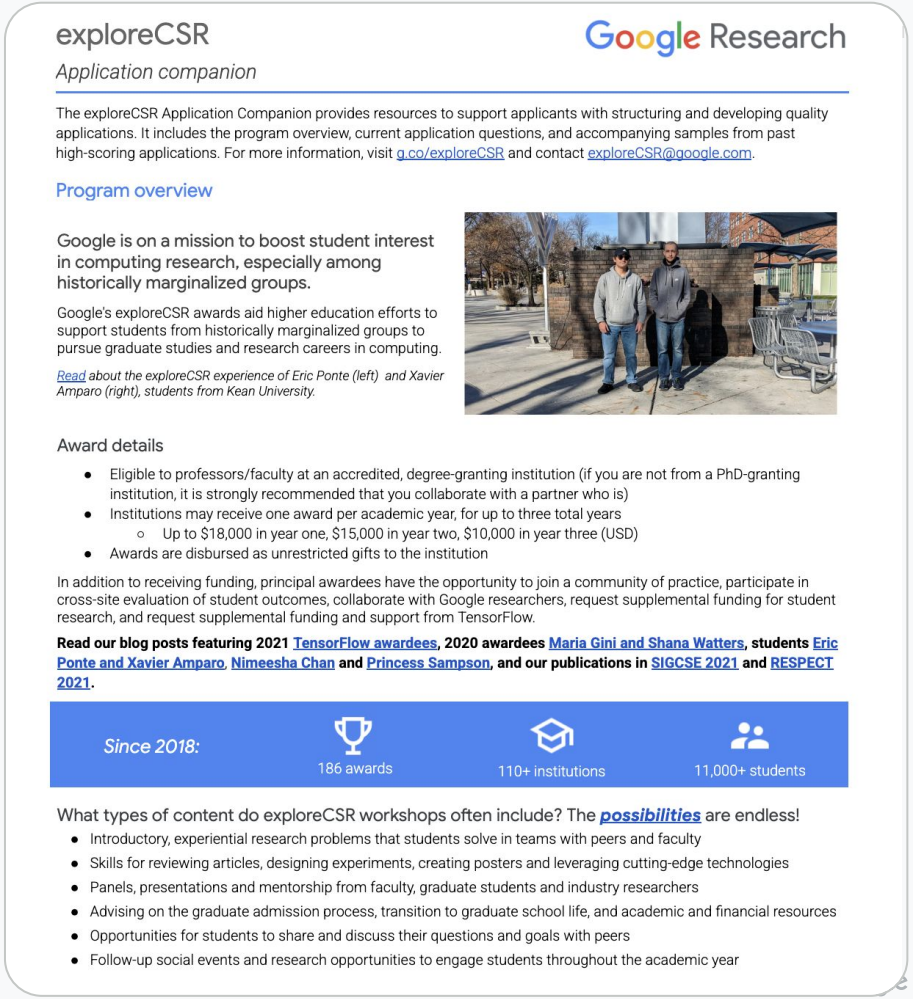
... with the help of funding from exploreCSR and TensorFlow!
Read more

exploreCSR Application companion

The exploreCSR Application Companion provides resources to support applicants with structuring and developing quality applications.

It includes the program overview, current application questions, and accompanying samples from past high-scoring applications.

For more information, visit g.co/exploreCSR and contact exploreCSR@google.com.



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Application companion

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Program overview

Google is on a mission to boost student interest in computing research, especially among historically marginalized groups.

Google's exploreCSR awards aid higher education efforts to support students from historically marginalized groups to pursue graduate studies and research careers in computing.

Read about the exploreCSR experience of Eric Ponte (left) and Xavier Amparo (right), students from Kean University.

Learn more & apply by July 26, 2023 at g.co/exploreCSR