



# Sothyro Meas

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## WORK EXPERIENCE

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### **Canadia Bank — Phnom Penh, Cambodia**

#### **Application Security Analyst (Pentest)**

[ 4 Jun 2024 – Current ]

- Perform penetration testing on web and mobile applications & APIs (**Kali Linux tools, Burp Suite, Frida**).
- Conduct vulnerability assessments & policy compliance scans (**Tenable Nessus**)
- Perform static and dynamic source code reviews (**SonarQube, JADX**)
- Lead phishing simulations to raise employee cybersecurity awareness (**Gophish**).

### **Ministry of Education, Youth and Sport — Phnom Penh, Cambodia**

#### **Freelance Software Developer**

[ Oct 2023 – Jun 2024 ]

- **Akhara** – Khmer E-book, Audiobook, and Pronunciation Assessment Mobile App for Cambodian Students
  - Implemented a pronunciation assessment feature using a **Hugging Face pre-trained** model.
  - Developed frontend (**React Native** and **Tailwind**) and backend (**Flask, Python**, and **Appwrite**).
  - Deployed to the Play Store and App Store under the name [Akhara](#), reaching **over 5,000 downloads**.
- **Plagiarism Detection Tool** – Web Application for Detecting Plagiarized Khmer Content
  - Built frontend (**React** and **Tailwind**) and backend (**Python, Flask, and Redis**).
  - Integrated **Google Cloud Vision** for Khmer PDF text extraction and **Elasticsearch** for similarity search.
  - Applied **NLP and information extraction techniques**, including Scikit-learn library (e.g TF-IDF) and BERT.
  - Website: [plagiarism-checker.duraseksa.gov.kh](https://plagiarism-checker.duraseksa.gov.kh) (requires login credentials; demonstration via the: [Link](#))

### **Kakvei — Phnom Penh, Cambodia**

#### **Technical Project Lead**

[ Sep 2022 – Jan 2024 ]

- Received **\$23,000** in funding to develop a web application and Chrome extension for Khmer writers by providing Khmer transliteration features, addressing challenges in the current Khmer typing system.
- Crawled Khmer text from public web sources and applied data cleaning, normalization, and data mapping.
- Website: <https://kakvei.tech/en/about-us/>, \*Reference for funding listed in the Honors and Awards section.

## UNDERGRADUATE RESEARCH EXPERIENCE

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[ 21 Aug 2023 – 26 Apr 2024 ]

### **Plagiarism Detection in OCR-Extracted Khmer Text: Method Comparison and Web Application Implementation**

- Project funded by the Secretary of State of the Ministry of Education, Youth and Sport in Cambodia
- Extracted text from Khmer PDFs using Google Cloud Vision OCR, followed by data cleaning and normalization.
- Evaluated different methods (TF-IDF, BERT, and Elasticsearch) and identified the most efficient approach for large-scale Khmer text comparison. Utilized data visualization tools such as Pandas, Scikit-learn, and numpy.
- Full thesis report: [Link](#)

## LANGUAGE SKILLS

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**Mother tongue(s):** Khmer

**Other language(s):** English (IELTS 7.0)

## EDUCATION AND TRAINING

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### Bachelor of Science in Information and Communications Technology

**American University of Phnom Penh** [ 11 Jan 2021 – 16 Sep 2024 ]

**Address:** Phnom Penh, Cambodia, | **Final grade:** 3.78 / 4.00 **Honors:** Magna Cum Laude | **Thesis:** Plagiarism Detection in OCR-Extracted Khmer Text: Method Comparison and Web Application Implementation

**Elective Courses:** *ICT 321 Cybersecurity, ICT 405 Ethical Hacking, ICT 406 Advanced Ethical Hacking, ITM 360 Machine Learning, ITM 390 Artificial Intelligence, ITM 370 Data Analytics, ITM 380 Cloud Computing*

## TECHNICAL ACTIVITIES

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[ Mar 2023 – Jul 2023 ]

### Technical Team Lead, Google Digital Literacy Funding Project

- Awarded **\$3,000** in funding from **Google.org** to lead a cybersecurity campaign in Cambodia, named **Puthi**.
- Reached thousands of Cambodian youth through university campaigns promoting safe digital practices.
- Developed a user registration webpage, and delivered cybercrime awareness content in Khmer language.
- Campaign social media: [Link](#), Website: <https://puthi.info/english>

[ Mar 2022 – Sep 2022 ]

### Cambodian Team Mentor, World Robotic Olympiad 2022

- Mentored the Cambodian team for the World Robot Olympiad 2022 final round in Dortmund, Germany.
- Built a remote-controlled boat to collect trash from rivers, tackling environmental challenges.
- Worked with Raspberry Pi, IoT components, and OpenCV.
- Reference: [Link](#)

## HONOURS AND AWARDS

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[ 2023 ] Innovative Project Award – Kakvei

**23,000\$ Total Funding and Awards:** Developed a digital writing tool that converts Khmer Romanized text to Khmer script, enhancing digital typing efficiency for Khmer writers. Received multiple awards for the project's innovation and impact:

- **Smart Start Young Innovator Winner from Axiata** (Nov 2022) –1st place winner with a 10,000\$ award [Link](#)
- **National Incubation Center of Cambodia** (Oct 2023) – for project development with a 10,000\$ funding [Link](#)
- **Business Model Competition 2023** (Dec 2023) – for innovative project proposal with a 3,000\$ award [Link](#)

[ Aug 2023 ] Huawei

**Moonshot Award for Best Entrepreneur Project in Asia Pacific:** Received the Moonshot award from American investor Jim Rogers and Huawei for the best tech business proposal development, competing among 16 countries in the Asia-Pacific region. [Link](#)