

BASANTA CHAULAGAIN

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RESEARCH INTEREST

Primarily interested in system security and digital forensics.

EDUCATION

Tribhuvan University, IOE, Pulchowk Campus (acceptance rate < 4%) Nov 2014 - Sep 2018

Bachelor of Engineering, Computer Engineering

Average Score: 79.16%

Coursework: Linear Algebra, Calculus, Probability and Statistics, Discrete Mathematics, Programming Languages, Theory of computation, Data Structures and algorithms, Software Engineering, Object-Oriented Analysis and Design, Digital Logic, Database System, Computer Networks and Security, Operating System, Computer Graphics, Embedded Systems, Data Mining, Artificial Intelligence, Distributed Systems, Digital Signal Analysis and Processing, Big Data Technology.

TEACHING EXPERIENCE

Cosmos College of Management and Technology May 2019 – Apr 2020

Lecturer

- Delivered lectures to engineering students on programming courses like C and C++.
- Prepared laboratory materials and conducted practical labs for programming.
- Periodically evaluated student's performance via assessments and assignments.

WORK EXPERIENCE

LogPoint Oct 2018 - Present

Security Analytics Engineer

- Developed software applications to parse raw logs from various sources and extract information from the logs.
- Created analytics contents like dashboard, alerts and reports from security analyst's point of view making use of Apache Lucene queries.
- Simulated the enterprise environment to generate attack related events and build analytics to detect them.
- Created dashboards and reports around regulatory compliances like NIST, GDPR, PCI DSS, etc.

Presales Engineer

- Evaluated customer's network infrastructure and designed the solution deployment architecture.
- Performed threat hunting and forensic analysis on customer's environment for early detection of breaches.
- Guided SOC teams of multiple customers in designing analytics based on attack frameworks like MITRE ATT&CK, Lockheed Martin's cyber kill chain.
- Designed metrics to measure the system's performance and developed programs to automate the process of operation monitoring.

Sorus Nepal

Jun 2018 – Aug 2018

Software Engineering Intern

- Involved in writing middleware, creating custom validators and exception handlings (Python-Django).

Univhub Nepal

Sep 2017 – Jan 2018

Backend Developer

- Involved in designing and implementing database for the solution.
- Created REST APIs in Python to help communicate from the UI.

PUBLICATION

- **B. Chaulagain**, A. Shakya, B. Bhatt, D. K. P. Newar, S. P. Panday and R. K. Pandey, “Casualty Information Extraction and Analysis from News”, *16th ISCRAM (International Community on Information Systems for Crisis Response and Management) Conference*, 2019, pp.1002-1011. http://idl.iscram.org/files/basantachaulagain/2019/1923_BasantaChaulagain_etal2019.pdf

ACHIEVEMENTS

- Winner, Presentation Category, LogPoint Conference on ‘Expanding Horizons Through Agile’
- Winner, LOCUS Hack-A-Week, 2017
- Finalist, Ncell App Camp, 2015
- [Edx Certified](#), Unlocking Information Security, Tel Aviv University

GRANTS RECIEVED

- Collaborative Research Grant (UGC Award No. CRG-74/75-Engg-01) received from University Grants Commission, Nepal for the research project “Casualty Information Extraction and Analysis from News”, 2019.

PROJECTS

Casualty Information Extraction and Analysis from News (Major Project)

- Developed a real time software to extract and visualize information from road accident related news from an online news portal.
- Extracted details like deaths and injuries, vehicles involved, and location of road accidents using techniques like Named Entity Recognition, Semantic Role Labeling and Regular Expression.

Plant Leaf Recognizer (Minor Project)

- Developed a software that can identify ten different species of plant by scanning their leaves using Convolutional Neural Network (CNN) for object detection.
- Pre-processed the training data images by removing the noise and enhancing the edges before fetching to the model.

Scan Akshar

- Developed a software to recognize character for Nepali printed text using CNN model.
- Prepared training data by transforming the shape of characters from collected Devanagari fonts.

E-voting System

- Created a web app to facilitate the student union's election in college with the features to register voters and candidates, verify voter's identity at the time of election, cast vote to the candidates and display the election result after the election.
- Created using Django framework of Python.

Restaurant Management System

- Developed a web app that can completely automate the processes in small restaurants like ordering food, generating bills, keeping inventory records, recording financial transactions, and printing the invoice.

EXTRA-CURRICULAR

Organizer, Hult Prize @ IOE Pulchowk **2018**

- Organized the quarter final round of the world's largest student competition and social business accelerator at Tribhuvan University.

Media Coordinator, LOCUS - 15th National Technological Festival **2018**

- Co-ordinated with media houses and promoted the largest national technological festival via press releases, digital and social media platforms.

Organizer, Children in Technology **2017**

- Conducted hardware and software workshops and educated high school students with the latest technological advancements.

Technical Volunteer, Help Nepal Network (HeNN) **2016 - 2018**

- Installed and maintained LTSP network for e-Library in the remote public schools of Nepal.

Member, AISEC in Kathmandu **2017 - 2018**

REFERENCES

Available on request