

Prabesh Poudel

Master of Science in Computer Science

Bowling Green, Ohio

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SKILLS

C++ | Python | C | PHP | Java | Javascript | Android App Development | MySQL | Machine Learning | AWS

EXPERIENCE

Bowling Green State University

Graduate Research Assistant- Department of Computer Science

Bowling Green, Ohio

August 2019-Current

- Currently working on Capsule Graph Neural Networks for android malware detection.
 - Analyzing android apps using an app's control flow graphs.
- Previously worked on a project of vetting android apps using supervised learning.
 - Using LSTM to classify between malicious and benign and malicious apps using keras.

Graduate Teaching Assistant- Department of Computer Science

August 2019-Present

- TA for CS 2010: Fundamentals of Programming with C++.
- TA for CS 3060: Programming Languages (Ruby, Prolog, Scala, Haskell)

ACM SIGGRAPH

Web Developer Intern

JAVASCRIPT, PHP, MAPBOX API, API ENDPOINTS, WORDPRESS

May 2020-Aug 2020

- Mostly worked on exporting the website data using PHP and creating map views for all the people and exhibition on several ACM SIGGRAPH exhibitions. Created API endpoints on the backend to retrieve data from the website that is displayed on the frontend using Mapbox API.

Publications:

D.Chaulagain, P.Poudel, P.Pathak, S.Roy, D. Caragea, Guojun Liu and Xinming Ou G. "Hybrid Analysis of Android Apps for Security Vetting using Deep Learning" IEEE CNS (2020).

<https://ieeexplore.ieee.org/abstract/document/9162341>

Thesis:

Security Vetting of Android Applications Using Graph Based Deep Learning Approaches.

- Using the API calls extracted from control flow graph of an app, we predict the nature of an app.

PROJECTS

- **KeepassXC (Open Source Contribution)** | C++ | GIT | QT Framework
 - KeepassXC is an open source multi-platform password manager. View my pull requests to the original repo: <https://github.com/keepassxreboot/keepassxc/pulls?q=is%3Apr+author%3Apaudelprabesh>
- **NEUROPLAY** | Python | NumPy | Neural Networks | Genetic Algorithms
 - Applied genetic algorithms to evolve Neural Networks that could play a game alike flappy bird on its own. <https://github.com/paudelprabesh/neuroplay>
- **HYPERPARAMETER TUNING IN LSTM** | Python | Keras | LSTM | Genetic Algorithms
 - Used genetic algorithms to evolve the optimal hyperparameter for LSTM.
- **Valley ATM** | Java | Android | Google Maps API
 - Developed android application for locating nearby ATMs and giving direction to them, using java.
 - Used google maps API to pinpoint the location and draw the direction.
- **Freelance website project** | JAVASCRIPT | PHP | SQL | SECURITY
 - Developed a website in PHP that acts as a portal for content writing job seeker and employer.
 - Used mysql database at the backend.
 - Applied basic security measures manually to prevent SQL injection, XSS, remote code execution and so on.

CONFERENCES:

- Association for Computing Machinery (ACM) SIGGRAPH 2020 – August 2020

EDUCATION

Bowling Green State University (BGSU), Ohio

Master of Science in Computer Science

Anticipated Graduation Date: May 2021

Tribhuvan University, Nepal

KATHMANDU ENGINEERING COLLEGE

(2013-2017)

Bachelor of Engineering in Computer Engineering