Anwesh Tuladhar

anwesh.tuladhar@gmail.com
(813)-534-8816

https://anwesht.github.io/
https://www.linkedin.com/in/anweshtuladhar

Education

- **University of South Florida** — Tampa, FL
  Ph.D in Computer Science; GPA: 4.0 (Member of Tau Beta Pi) — *January 2016 – Present*
- **Kathmandu Engineering College** — Kathmandu, Nepal
  Bachelor of Electronics and Communication Engineering — *August 2010 – January 2014*

Experience

- **Facebook** — Seattle, WA
  Software Engineering Intern — *January 2021 – April 2021*
  - Integrated multiple static analysis tools to facilitate cross-language taint-flow analysis which allowed the security engineers to triage issues across remote procedure calls.
- **University of South Florida** — Tampa, FL
  Graduate Research and Teaching Assistant — *Spring 2016 – Present*
  - **Secure Software Development Research**: Conducted over eight months of ethnographic fieldwork at a software development company, studying and improving the secure development practices of the team.
  - **Transportation Security Research**: Conducted a security evaluation of the devices and applications used in the transportation infrastructure. Devised a systematization framework based on it.
  - **Security Operations Research**: Developed automation and network analysis tools to improve perimeter security. Deployed multiple research honeypots.
  - **Android Security Research**: Developed a language translator from Argus-Jawa (an intermediate language used in Amandroid) to Java. The translation was based on heuristics applied to the Argus-Jawa AST and written in Scala.
  - **Teaching Assistant - Graduate Operating System**: Designed a series of projects for students to incrementally build critical components of their own OS.
- **Synopsys Software Integrity** — San Francisco, CA
  Technical Intern — *May 2018 – August 2018*
  - Designed dataflow tracking for HTML DOM and developed client-side DOM-XSS vulnerability checker for javascript over it.
- **Deerwalk Services** — Kathmandu, Nepal
  Software Engineer — *November 2013 – December 2015*
  - Developed webservices for medical and financial data analytics using Elasticsearch and MySQL databases.

Projects

- **Compiler Design for an Object Oriented Language**: Developed a compiler (including lexer, parser, dynamic dispatcher, and code generator) for an object oriented language in C using flex/bison. Also implemented the lexer and parser by hand.
- **Twitter Hashtag Generator**: Implemented a sequence-to-sequence language model to generate suitable hashtags for a given tweet using keras.
- **Graph Data Processing**: Implemented and analyzed a generative model for network/graph generation described in the paper by Sendina-Nadal et al. using NetworkX.
- **VAST Mini-challenge 2017**: Led the team for mini-challenge 1. We developed a tool to process sensor data in Apache Spark and visualize it as a subway map using Processing3 and Tableau. Our team also got an honorable mention for mini-challenge 3.
- **Image recognition using CNN**: Built a convolutional neural network for image recognition using TensorFlow.
- **Yelp Dateset Challenge**: Developed a Spark application using StanfordNLP library to analyse businesses from Yelp dataset based on their user reviews, locations, and user communities.
- **Particle Simulation**: Optimized a simple serial particle simulator using 3 different techniques: OpenMP, MPI, and GPU in the Stampede super computer as a part of Parallel and Distributed Systems course.

Technical Skills

Programming	Java, Scala, C/C++, Python, ML, SQL, bash, LaTeX, Flex/Bison
Security Tools	Splunk, Wireshark, Nessus, Metasploit, Nmap
Data Analysis & Visualization	Apache Spark, NetworkX, SNAP, Gephi, Processing 3, Tableau
Development Tools	Git, GNU Tools, Maven, Intellij, Vim
Machine Learning	Keras, TensorFlow, Weka, Stanford NLP
Databases	ElasticSearch, MongoDB, MySQL, MSSQL