Shravya Kaudki Srinivas

skaudkis@andrew.cmu.edu | 412-628-5489
https://github.com/shravya-ks
https://linkedin.com/in/shravya-kaudki-srinivas

EDUCATION

Carnegie Mellon University
Masters in Information Networking
Expected May 2019 | Pittsburgh, PA

- 15-513 Introduction to Computer Systems
- 18-756 Packet Switching and Computer Networks
- 10-601 Introduction to Machine Learning

National Institute of Technology Karnataka
Bachelors in Computer Engineering
May 2017 | GPA: 9.35/10.0 | Surathkal, India

EXPERIENCE

Google Summer of Code | Open Source
Contributor for ns-3
June 2017 – Aug 2017 | Remote, Bengaluru, India

- Created a framework for TCP Prague Simulations in ns-3
- Implemented Data Centre TCP, DualQueuePI2 AQM and Data Centre Topolgy helpers in ns-3 along with unit tests
- https://github.com/shravya-ks/ns-3-tcp-prague

ns-3 Summer of Code | Open Source
Contributor for ns-3
August 2016 – October 2016 | Remote, Bengaluru, India

- Implemented **RFC 3168** (The Addition Of ECN to IP) in ns-3 to provide ECN support for ns-3 queue-discs
- The code contributed has been merged in latest version of ns-3
- https://www.nsnam.org/wiki/ECN_support_for_qdiscs_in_ns-3

MITACS Globalink Research Intern
May 2016 - July 2016 | University Of Alberta, Edmonton, Canada

- Examined the problem of localisation in mobile underwater sensor networks governed by meandering jet mobility model
- Implemented mathematical framework in C++ for solving meandering jet mobility model using differential calculus in order to compute the final positions of underwater sensor nodes deployed
- Designed and implemented an algorithm in C++ for localisation of sensors and extended it to design grid and clustering based algorithms with monte-carlo sampling for probabilistic localisation of nodes
- Developed an animator in Java for simulation of meandering jet mobility model

SKILLS

Programming: C • C++ • Java • Python • UNIX shell • ns-3 • LaTeX • HTML • CSS

PROJECTS

Bachelor's Thesis | AQM Evaluation Suite for ns-3

- Implemented **RFC 7928** (AQM Evaluation Suite) in ns-3, a fully automated ns-3 based suite to evaluate different AQMs
- https://aqm-eval-suite.github.io/

Parallel Bake | Parallelisation of Bake

- Designed an architecture for parallel resolution of dependencies in bake project
- Implemented the designed architecture with the help of fork system call in Python

Universal Compilation Server | Web Socket based light weight compilation server

- Implemented an ubuntu server to serve windows systems which can accept programs in C, C++, Java and Python alongside values to be passed in std input and reply with result to be showed in std output
- Utilised socket programming to form an integrated development environment in two parts. The frontend is in Java connected to a Python backend

PUBLICATIONS

- [1] Ankit Deepak , **Shravya K.S.** , and Mohit P. Tahiliani. "Design and Implementation of AQM Evaluation Suite for ns-3." WNS3 '17 Proceedings of the Workshop on ns-3: 87-94.
- [2] Prashasthi Mavin, **Shravya K.S.** , and Ankit Deepak. "Image Processing Approach to Diagnose Eye Diseases." ACIIDS 2017: Intelligent Information and Database Systems: 245-254.
- [3] **Shravya K.S.** , Smriti Murali and Mohit P. Tahiliani. "Implementation and Evaluation of Proportional Integral Controller Enhanced (PIE) Algorithm in ns-3" WNS3 '16 Proceedings of the Workshop on ns-3: 9-16.

AWARDS AND HONORS

- **Prabhu and Poonam Goel Fellowship** , 2017 by CMU INI
- **MITACS Globalink** Undergraduate Research Fellowship, 2016 by MITACS
- **Indian Academy of Sciences** Summer Research Fellowship, 2015 by IISc