Rutvik Saptarshi

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EDUCATION

Binghamton University, State University of New York   **Expected May 2021**
Bachelor of Science in Computer Science
Overall GPA: 3.45

Vellore Institute of Technology   **May 2019**
Bachelor of Technology - Computer Science
Overall GPA: 8.62

TECHNICAL SKILLS

Languages: Python, C++, Node.js, C, Java, PHP
Software and OS: Git, IDLE, Linux, OSX, Octave, RStudio
Additional: MySQL, Google Cloud Platform administration, Linux system administration, Apache Beam, Keras

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PROFESSIONAL EXPERIENCE

Binghamton University, Research Assistant | Binghamton, USA   **December 2019 – Present**
- Document and refactor code relating to energy management using dynamic frequency and voltage scaling
- Test the jRAPL library and modify the codebase to add support for different architectures
- Research on energy efficient compilers

Green Pyramid Energy, Intern | Pune, India   **May 2019 – August 2019**
- Developed a water-level monitoring solution to log and display real-time data about water tank volumes
- Designed the database schema for event logging in Google BigQuery
- Deployed the asynchronous messaging system on Google Cloud Pub/Sub
- Constructed streaming data pipelines for real-time processing with Apache Beam and ran them on Google Cloud Dataflow
- Modeled a neural network to generate predictive insights based on collected data using Keras
- Programmed firmware on the Arduino IDE as a part of a proof of concept for an ultrasonic water flow sensor
- Completely automated, cloud hosted data analysis decreased running costs by 15%

Vellore Institute of Technology, Research Assistant | Chennai, India   **December 2018 – April 2019**
- Analyzed various image segmentation methods to classify terrain in a satellite image
- Implemented the K-Means and K-Nearest Neighbors classification algorithms in GNU Octave

CyberSecurist Technologies, Intern | Pune, India   **May 2018 – July 2018**
- Gained first-hand experience with Linux system administration – user management, system updates, error log analysis
- Network analysis using tools like Wireshark and nmap
- Research and exploit the OWASP top 10 vulnerabilities with Metasploit

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PROJECT EXPERIENCE

Arduino Programmer | Chennai, TN, India   **January 2019 – May 2019**
- Developed a game similar to 'T-rex Run!' using a Arduino board, LCD display for the animation, and a button to make the character jump
- Deployed git version control for maintaining project source code

Python Developer | Chennai, TN, India   **August 2018 – November 2018**
- Designed a music player desktop application using Tkinter, the in-built Python GUI module
- Extracted MP3 metadata with the Mutagen module via the APIC tags
- Incorporated playlist creation and song queueing functionality
- Implemented agile software development methodology to structure the software development process

Python Programmer | Chennai, TN, India   **December 2018 – April 2018**
- Created a Library Book Management System using Python and MySQL
- Incorporated administrative functionalities such as user creation, inventory update, and fine collection

C++ Programmer | Chennai, TN, India   **December 2018 – April 2018**
- Designed similar project as the library management system above, except using only file handling in C++
- Incorporated a multitude of object-oriented programming concepts

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LEADERSHIP EXPERIENCE

OWASP VIT Student Chapter, Member of Core Committee | Chennai, TN, India   **January 2018 – May 2019**
- Organized workshops and hackathons for members
- Contacted prospective sponsors to fund events
- Managed groups of up to 12 members in charge of ensuring smooth execution of plans during events
- Tasked with managing social media accounts to advertise events