Amar Nath Vaid

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Education

University of Florida — Gainesville, FL

- *Master of Science in Computer Science; GPA: 3.44* — *01/01/2017 – 12/20/2018*

  Coursework: *Algorithms, Advanced Data Structures, Object Oriented Programming*

Thapar Institute of Engineering and Technology — Patiala, India

- *Bachelor of Engineering in Electronics and Communication; GPA: 7.12/10.0* — *08/01/2013 – 07/15/2017*

Skills and Expertise

Languages: Java, Python, C#, Ruby, C, C++ ; **Web:** SQL, JavaScript, HTML, CSS, PHP

Experience

- **Amazon, Seattle, WA, U.S.***: Software Development Engineer* — *03/04/2019 - Present*
  - Working in the Elastic Block Store team in AWS responsible for storing data in EBS volumes over cloud and taking in-time snapshots of the stored data to create incremental backups and enabling customers to perform different read/write operations on them.
  - Created new EBS Direct APIs to support business and implemented end to end testing. Implemented a canary workflow for the same to mimic customer traffic at an incremental tps for stress and load testing. Wrote integration tests to ensure that service stays healthy after addition of new APIs.
  - Worked on securing AWS Backup Service Control Plane. Migrated APIs under our services to new credentials management system to secure our systems against any external attacks and limiting the blast radius of any sort of impact.
- **Amazon, San Jose, CA, U.S.***: Software Development Engineering Intern* — *09/10/2018 - 11/31/2018*
  - Worked as a part of the Hardware Monitoring Team responsible for building and maintaining the set of software used to monitor hardware issues and failures in AWS servers.
  - Implemented dirty reboot analyzer - a tool that monitors AWS Servers to look out for reboots marked as 'dirty'. Analyzes the reboot to get to the root cause based on ingested System Event Logs and Machine Check Exceptions from the AWS Servers. Log root cause and related data in a redshift database ready to be ingested by other sources for various purposes.
- **DKOP Labs Pvt. Ltd., India***: Software Engineer Intern* — *04/15/2015 - 07/15/2015*
  - Designed digital circuits using logic gates and ICs by carrying out simulation of the digital circuits using and C, Python and Verilog. Implemented the I2C communication protocol for data transfer between master-slave devices.
- **UvSofts Tech Pvt. Ltd., India***: Summer Intern* — *04/10/2014 - 07/02/2014*
  - Developed a DTMF controlled security system using an AVR microcontroller. Programming for the embedded circuit was done in C language.

Academic Projects

- **MIPS Simulator***: Java* — *2018*

  Implemented and designed a Petri Net simulator for MIPS Processor in Java to produce a disassembled output and a simulation trace for given line of instructions in machine language. Registers and data memory values were printed equivalent to input code.
- **Care for her***: Unity 3D, C#, Virtual Reality* — *2018*

  A mobile application to spread awareness of maternity care and issues during puberty that educated the users of the causes, treatment and symptoms of common maternity problems and problems faced at the time of attaining puberty. The application lets users learn in an interactive way with the help of Virtual Reality. Development was done in Unity 3D. Actions and interactive behaviors to application elements were scripted in MonoDevelop using C#. 3D models were extracted from Turbosquid and Autodesk.
- **Carter***: SQL, HTML, CSS, JavaScript, JSP* — *2018*

  A web application to buy and sell used cars. A large database for the used cars was obtained from eBay. A buyer could browse through the advertisements posted by other sellers and obtain the results conforming to his/her requirements by applying various available filters which would use complex SQL queries to extract the desired tuples from the database. A platform for efficient communication between a buyer and seller was developed.

- **FurnitureAR***: Android Application, Augmented Reality, Unity 3D, C#* *2017*
  An application to display three-dimensional visualizations of home furnishing products which augments them in the real environment using marker-based augmented reality. Application was developed using Unity 3D and scripting was done using C#.
- **Dynamic de Bruijn graphs for genome assembly***: C++* *2017*
  An application to display three-dimensional visualizations of home furnishing products which augments them in the real environment using marker-based augmented reality. Application was developed using Unity 3D and scripting was done using C#.
- **Huffman Encoder-Decoder***: Java* *2017*
  Using Huffman Coding and implementing 4-way cache optimized heap to encode and decode large data.

Involvements

- Received award for best Organizing Committee President, ***AIESEC India*** *2015*
- Design and Marketing head of ***Thapar University Model United Nations*** *2016*