Aman Priyadarshi

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EDUCATION

NSIT, UNIVERSITY OF DELHI
B.E. in Computer Science
2014 - 2018 | Delhi, India

RPVV, SHALIMAR BAGH
2008 - 2014 | Delhi, India
CBSE XII-PCM: 92%
CBSE X (CGPA): 9.2 (out of 10)

LINKS

Github:// **amaneureka**
LinkedIn:// **amaneureka**
Twitter:// **amaneureka**
StackOverflow:// **amaneureka**

SKILLS

Python • C# • C/C++ • x86-Assembly • PHP • HTML • CSS

Data Structures • Operating Systems • NT Drivers • Web Application Security • Reverse Engg.

Git • SVN • TFS

PATENTS & PUBLICATIONS

LDPC PATENT - 2020
Method and System for Generating Parity Check Matrix for Low-Density Parity Check Codes

IEEE SSCI - 2018
Synthesis of Neural Networks using Entangled Neurons

ADDITIONALS

T-REX DINOSAUR
A T-Rex Chrome game simulation in JavaScript that uses Reinforcement learning-based algorithm to play game all by itself.

STYLUS
An offline handwriting recognition pen like hardware and tensorflow based model that will type what you write. It supports English alphabets and numbers.

IIRAT
A Windows service that runs in the background and let you remotely control your device. Message passing and authentication are done through sockets.

EXPERIENCE

MICROSOFT | Software Engineer
July 2022 – Current | London, United Kingdom

- Support and maintain Microsoft Hypervisor (Hyper-V) and Core Virtualization technologies.
- Windows Kernel (NT) development with the focus on Virtualization.
- Contribute to Microsoft's long-term vision and strategy to the Virtualization.

AMAZON | Kernel/Hypervisor Engineer
Feb 2020 – Current | Dresden, Germany

- Linux kernel development and maintenance with a focus on KVM.
- Hypervisor userspace development (C++).
- Kernel and Hypervisor optimization to reduce Live Update time.

SMART IOPS | Member of Technical Staff
July 2018 – Jan 2020 | Bangalore, India

- Designed LLVM Compiler Backend for in-house developed micro-controller.
- Optimized and ported assembly firmware to C code using LLVM compiler. This enabled more flexibility in firmware changes and reduced debugging time.
- Defined LDPC architecture & optimized algorithms to generate optimal H-matrix for high-rate, high-girth - hard decision decoding. This enabled us to correct more than 40 errors per frame.

HACKERRANK | Software Engineering Intern
May 2017 – Jun 2017 | Bangalore, India

- Implemented testcase parallelization infrastructure. Became familiar with Lambda functions and used that in parallelization infrastructure.
- Improved CodeChecker response time by optimizing internal modules and re-designing Java tokenizer.

Dec 2015 – Jan 2016 | Bangalore, India

- Reported & fixed vulnerability that could have been exploited to gain access over HackerRank testcases during the running contests.
- Integrated Aws C++ SDK in the CodeChecker.

GOOGLE SUMMER OF CODE '16 | Kernel Driver Developer, ReactOS
May 2016 – Dec 2016

- Developed SATA-AHCI Driver for windows server 2003 targeting NT 5.2/6 windows storage stack model.
- Enabled win2k3 bootability on newer SATA devices without IDE emulation.

OPEN SOURCE

ATOM OS | Real Operating System in C# from scratch.
June 2014 – Present

Atom OS is a managed x86 monolithic kernel based OS developed in C# from scratch. Compiled using self-designed MSIL backend compiler. I also developed kernel device drivers such as IDE, PS2, and SVGA.

HONORS & AWARDS

2017 Secured #325 (world) in the Snack Down Pre-Elimination Round
2016 Google Summer of Code 2016
2015 HackerRank and CodeChef Vulnerability Report