Anirudh Pal

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Educational Background:

Purdue University: Bachelor of Science 2015-2019 (Expected)

Major: Computer Science (Junior) GPA: 3.75

Projects:

1. Systems Independent Study (OpenDNC): github.com/AnirudhPal/OpenDNC
CS 390, Purdue

Abstract: The project is about developing opensource DNC software for Direct Numerical Control between PC
(Windows/LINUX) and CNC Controllers (Haas Classic Control & Next Gen Control).

- Current solutions on the market are commercial software that cost on average 200\$ per seat. By building an opensource solution I want to make the software free for individuals, students & research groups.
- The product is currently capable of file transfers between the two systems and perform topographical probing.
- Systems Programming (OpenBackplot): <u>github.com/AnirudhPal/OpenBackplot</u> CS 252, Purdue <u>Abstract:</u> This project was a final project for CS 252. It is a visualizer for G-Code with collaborative features like Google Docs.
 - The server runs on NodeJS and most of the interactive elements are designed in JS and 3JS.
 - The website was hosted on AWS with support for multiple users and saving files on the cloud.
- 3. Personal Website: github.com/AnirudhPal/anirudhpal.github.io

Personal

Abstract: This is a project that will transform into my personal website.

- The website runs using Github Pages and Jekyl Static Website Builder.
- I use Markdown to build the static elements of the website and the dynamic elements are done in JS.
- 4. IOT Applications (Drone Surveyor):

CS 390, Purdue - Present

Abstract: This is a semester research project in which we are attempting to use drones to get 3d spatial data within buildings.

We are supportly using a D.H. Sarak with their Mobile SDK.

• We are currently using a DJI Spark with their Mobile SDK.

Employment:

1. UTA @ Artisan & Fabrication Lab, Purdue, USA

Present

<u>Duties:</u> Currently my responsibilities include setting up network infrastructure to facilitate management of CNC Machines and setup a custom environment for Fusion 360. I also provide consultation and assistance to students and research groups who come to the lab to fabricate parts for their project. This can involve CAD design, CAM process, writing NC Code etc.

2. UTA @ CS 252, Purdue, USA

<u>Duties:</u> I help students in the lab with their lab assignments and do grading of the homework.

Present

3. Haas VMC System Integrator @ TechShop, Abu-Dhabi, UAE

Duties: I was responsible for configure CAM package environment variables, setting up CNC Machine & build tool library.

Volunteer Work:

1. President @ Student Body, JSS International School, Dubai, UAE May 2011 – May 2013 Duties; Responsible for organizing and funding high school and middle school events and activities.

Technical Skills:

- 1. Proficient in Python, Java, JavaScript, Markdown, HTML, CSS, C, C++, ARM Assembly, Arduino, NC & Swift.
- 2. Some experience in R, XML, Bash Scripting, LabView, PHP, Embedded C, Q-BASIC & MATLAB.
- 3. Knowledge of tools including *Unit Testing*, AVR-DUDE, GDB, Val-grind, LINUX OS, PuTTY etc.
- 4. Understanding of Graph/BST based Algorithms, Complexity Analysis, Discrete/Linear Mathematics & ARM.
- 5. Miscellaneous skills include Autodesk Inventor, Siemens NX, Catia, FritzingFAB, Haas CNC Mills, Adobe Creative Suite, Flow Waterjet & PADI Open Water Diver.