Parth Varu

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EDUCATION

California Polytechnic University Pomona (CPP) **Expected Graduation:** May 2022
Master of Science, **Computer Science** **GPA: 3.31**

California State University Northridge (CSUN)
Bachelor of Science, **Computer Science** **GPA: 3.26**

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C++, OpenCV, JavaScript.
- **Framework:** Angular, Django, Agile, Scrum.
- **Database:** MongoDB, MySQL.
- **Web Technologies/Services:** HTML5, CSS3, Bootstrap.

RELEVANT EXPERIENCE

Early Fire Detection & Suppression using Multiple UAVs: *Sponsored by* - NASA & USRA

- Introduced a Ground control station (GCS) to show real-time telemetry data of UAVs, trajectories of UAVs, stitch images and display on user screen, and maintain a real-time communication between multiple UAVs.
- Acquired XBee Java library expertise to appraise real-time communication between GCS and UAVs.
- Performed image stitching using OpenCV libraries for better situational awareness using images captured from thermal camera.
- Investigated existing fire detection codebase for location offset acquired from image frame and maximized accuracy by 7%.
- ***Technology Used:*** - Java, C++, OpenCV, XBee, Flir Boson camera.

Northrop Grumman Collaboration Project, CPP – *Backend Deputy Lead*

- Developed a software requirements document for ground control system to control Aerial vehicle (UAV) and ground vehicle (UGV).
- Coordinated cross functionally with UAV, UGV teams to document software requirements specifications from Request for Proposal.
- Learned geofencing to develop customized search area based on user input and track vehicles to avoid violation by entering restricted location.
- ***Technology Used:*** - Python, diagrams.net, Google geofencing.

CSUN VEX Robotics club – *Software Engineer*

- Designed autonomous and manual drive program for VEX Robotics Competition game.
- Developed a scalable prototype for the Robot by maintaining effective communication, ensuring cross-team cooperation, and partnering with Mechanical Engineer team.
- Used Pixy tool to recognize appropriate color of flags in game.
- Augmented robot's efficiency by 20% through writing autonomous code and leveraging advanced programming skills.
- ***Technology Used:*** - RobotC, VEX C++.

Budge – *Group Project*

- Orchestrated and developed an android application to keep track of daily expenditure and help people save money.
- Produced faster results by conducting weekly iterations / sprints.
- Extracted information from receipts through Optical character recognition (OCR) implementing Google's Firebase text recognition API.
- ***Technology Used:*** - Android Studio, Scrum framework, Adobe Xd.

CSUN Department of Police Services – *Individual Project*

- Developed and designed User experience for the CSUN Lost and Found department that can improve departments productivity.
- Created innovative design concepts based on a deep understanding of user needs and business objectives. Work with and/or develop user research and usability tests.
- Created wireframes, screen-flow diagrams, and UI specification document.
- Promote and perform development work consistent with industry standards and best practices, design interfaces and integrations.
- Increased department productivity through various design process improvement implementations.
- ***Technology Used:*** - Adobe Xd, diagrams.net