

# AMAR PRAKASH PAL, M.ENG.

Hamilton, ON

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## FULL STACK | TECHNICAL SOLUTIONS | DATA VISUALIZATIONS & REPORTING

Detailed, solution-focused Software Engineer highly regarded for contributing to dynamic teams and performing testing and analysis to deliver outstanding results to clients. Motivational leader and collaborator, known for developing creative solutions to problems and driving project execution to produce on time and under budget. Leverages advanced technical skills to achieve quality outcomes. Out-of-the-box thinker with the ability to synthesize complex information and derive new approaches, managing simultaneous tasks and thriving in fast-paced, deadline-driven environments.

### CORE COMPETENCIES

- |                       |                         |                          |
|-----------------------|-------------------------|--------------------------|
| ▪ Data Insights       | ▪ Business Intelligence | ▪ Data Analytics         |
| ▪ Research & Analysis | ▪ Data Tools/Management | ▪ Requirements Gathering |
| ▪ Collaboration       | ▪ Client Support        | ▪ Time Management        |
| ▪ Machine Learning    | ▪ Reporting             | ▪ Agile Methodologies    |
| ▪ Communication       | ▪ Business Analysis     | ▪ Quality Assurance      |
| ▪ Project Management  | ▪ System Enhancement    | ▪ Dashboard Creation     |

### TECHNOLOGIES

Microsoft Office (Word, Excel, PowerPoint) / Microsoft Power BI / Microsoft Azure / Microsoft Flow / Microsoft PowerApps / Siemens NX10 / AutoCAD / MATLAB / HTML / CSS / SQL / Python / C / C++ / JSON / JavaScript (jQuery, Angular 4) / Microsoft SQL Server / Java / C# / ASP.Net/ Microsoft Dynamics NAV

### EDUCATION

**McMaster University, Hamilton, ON: 2019** | *Master of Engineering – Manufacturing Engineering*

- **Relevant Coursework:** Manufacturing Systems, Lean Six Sigma for Engineers, Project Management, Multivariate Statistics for Big Data Analysis
- **Clubs/Activities:** Engineering Graduate Society, McMaster AI Society
- **Relevant Projects:** Effect of Cutting point tool on Steel using MATLAB, Design of Portable Laptop Stand by 3D printing

**Dr APJ Abdul Kalam Technical University: 2018** | *Bachelor of Technology – Mechanical Engineering*

- **Relevant Coursework:** Fluid Mechanics, Applied Thermodynamics, Strength of Materials, Machine Design
- **Clubs/Activities:** Robotics Club – Member, Mechanical Engineers Students Association – Student Representative

### Certifications or Additional Education:

**Udemy** – *The Complete MATLAB Mastery: From Beginner to Expert*

**edX** – *ENGR2000X: A Hands-on Introduction to Engineering Simulations*

### PROFESSIONAL EXPERIENCE

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**LONGANVISION CORP | HAMILTON, ON | 2020 - PRESENT**

#### Volunteer Software Engineer

Launched and led the design and implement the back-end of web app of the 5G video/ sensor data application, including several key projects, including:

- Researched the basic authentication/ security component of the app, focusing on the encryption of the video data (gstreamer), as well as user authentication and management.
- Currently working collaboratively on a new Python flask application and walk through streaming video from a “FVS”

device (mocked by code) to the current web app.

- Work on the 5G FVS device webapp (basic front-end UI, web preferred) and back-end application providing proper authentication of viewers and the devices.
  - Ensure only specific AR devices can establish the connection to—and do bidirectional communication with—the web applications.
  - Achieve secure access for the app to view streaming data from the devices and communicate with firefighters using the AR device.

#### **STELCO-THE STEEL COMPANY OF CANADA | HAMILTON, ON | 2019**

##### **Technology and Innovation Co-Op**

- Offered key contributions in mobile app development, programming, and debugging in collaboration with up to 4 team members, and produced unique and highly effective training materials on related concepts.
- Performed regression/system-level testing to achieve quality and functionality goals, overcoming complex problems through ingenuity and attention to detail; created clear, engaging reports to deliver on plans.
- Championed innovative systems for data collection, storage, and management of customer orders which reduced related work-hours by 25% and are now used as company gold standard.
- Supported origination of safety email alerts as well as relevant standard operating procedures.

#### **MODERN INDUSTRIES | GHAZIABAD, IN | 2017**

##### **Mechanical Engineer Intern**

- Aided non-destructive testing and performed complex calculations to support improvements across the manufacturing process.
- Performed various stress and strain analyses, gaining strong understanding of statistical methods.
- Implemented safety documentation on new machines through lookout placards and standardized work instruction, coordinating with leadership to assess documentation efficacy and enable enhancements across the organization.
- Expanded knowledge base across mechanical engineering concepts while working on railway wagons.

### **PROJECTS**

#### **Safety Email Alerts | STELCO | 2019**

- Created an automated system that delivered daily Weather alerts company-wide via Microsoft Flow; the system collected data from the weather API and determined if it was a goggle or no-goggle day according to wind speed.
- Drove database development and stored weather data in the SharePoint list on the company's website.

#### **Scrapyard Phone Application | STELCO | 2019**

- Designed the application with Microsoft PowerApps and connected it to the Oracle database to store real-time data.
- Added features to hide confidential information and integrate photo-taking capabilities in the application.

#### **Big Data Analysis | McMaster University | 2018**

- Used different types of Machine Learning algorithm to identify the best one for classification of data.
- Worked on Real data from UCI repository and found out the best accuracy from the algorithm.

#### **Portable Laptop Stand | McMaster University | 2019**

- Designed portable Laptop Stand on Siemens NX10 after evaluating customer reviews on E-commerce websites.
- Easy to carry and install on wall and 3D printed.

### **ADDITIONAL CREDENTIALS**

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|----------------------|---|
| <b>LANGUAGES</b>     | English / Hindi   |
| <b>ORGANIZATIONS</b> | Ontario Society of Professional Engineers / Society of Manufacturing Engineers (SME) / Institution of Mechanical Engineers (IMechE) |
| <b>VOLUNTEERISM</b>  | National Service Scheme – Team Member, Wesley Canada  |