Divyanshu Prakash: A Journey of Innovation, Leadership, and Technical Excellence

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Early Education and Academic Foundation

Divyanshu Prakash is a promising young technologist currently pursuing a **B.Tech (Honors) in Mechatronics Engineering with a Minor in Computer Science** at the **Indian Institute of Technology (IIT), Bhilai**. His academic journey began at **R.P.S. School, Nalanda, Bihar**, where he achieved an impressive **92% in his Senior Secondary Education (2020-2022).**

At **IIT Bhilai**, he has maintained an outstanding **CGPA of 8.75**, demonstrating his academic prowess and commitment to excellence. His multidisciplinary approach to technology bridges the gap between mechanical systems and computational intelligence.

Technical Expertise and Skill Set

Programming and Web Development

- **Languages:** C++, Python, C, JavaScript, SQL
- **Web Technologies:** React.js, Node.js, Express.js
- **Frontend Frameworks:** Tailwind, Bootstrap
- **Databases:** MongoDB, PostgreSQL
- **Design Tools:** Figma

Machine Learning and Artificial Intelligence

- **Libraries:** NumPy, Pandas, Matplotlib, Scikit-learn
- **Specialized Skills:** Computer Vision, OpenCV
- **Advanced Techniques:** Deep Learning, Machine Learning Algorithms

Developer Tools and Platforms

- **Version Control:** Git
- **Containerization:** Docker
- **Operating Systems:** Linux
- **Development Environment:** VS Code

Internship and Professional Experience

AI/ML Internship at IBITF, IIT Bhilai (May 2024 - July 2024)

During his internship, Divyanshu led the development of an **Automated System for Recognition and Packaging of Purchase Items**, focusing on fruits and vegetables.

Key Achievements:

- Developed a **computer vision system** recognizing **50+ fruit and vegetable types**.
- Utilized **SAM AI and DINO AI** for dataset segmentation.
- Trained a **YOLOv8 model**, achieving **85% accuracy**.
- Created an **interactive GUI using Python Tkinter**.
- Designed an **optimized MySQL database** for transaction tracking.

Remarkable Projects

Krishi AI: Precision Agriculture for Plant Health

- Developed a **plant disease detection model** using **YOLOv11**.
- Integrated **Deep Fusion Network (DFN)** for enhanced feature extraction.
- Processed **26GB of plant data**.
- Achieved an impressive **99.14% accuracy**.

Other Significant Projects

- **Smart Room Guard** - IoT-based Environmental Monitoring System.
- **Nurse Bot** - Autonomous Mobile Robot for Navigation and Assistance.
- **Sci-Tech Website** - Developed for IIT Bhilai Clubs.
- **Flamingo News** - Dynamic React.js News Application.

Leadership and Extracurricular Achievements

Team Leadership

- **Team Leader at Inter IIT Tech Meet 2024 (Mid Prep 1)**
- Led a team of **6** to develop a **Dream11 solution with 95% accuracy**.
- Engineered **GRU & XGBoost models**.
- Created **React-Flask UIs** for model insights.

Club Memberships and Contributions

- **Core Member of Ingenuity (Competitive Programming Club)**
  - Mentored **200+ students** in Competitive Programming.
  - Organized **10+ workshops** with **90% student satisfaction**.
- **Member of Openlake (Open Source Development Club)**
  - Contributed to multiple **open-source projects**.
- **Member of Epsilon Robotics Club and FPS Club**.

Competitive Programming and Achievements

- **Specialist (1569) on Codeforces**.
- **3-star (1717) on CodeChef** (Top **0.86%** of active Indian users).
- **4th rank** in the **Ingenuity Individual Programming Contest**.
- Participated in **Dark Pattern Buster Hackathon 2023**.

Personal Branding and Online Presence

- **Codeforces Profile**
- **CodeChef Profile**
- **LeetCode Profile**
- **GitHub:** divyanshu-prakash-rx
- **LinkedIn:** Divyanshu Prakash
- **Personal Website:** divyanshu-prakash.onrender.com

The Early Years

Born and raised in **Nalanda, Bihar**, Divyanshu emerged from a region rich in historical significance but often challenged by limited technological opportunities. At **R.P.S. School**, he distinguished himself early, achieving an exceptional **92% in his Senior Secondary Education**—a testament to his determination and intellectual curiosity.

The IIT Bhilai Chapter: Forging a Technological Identity

In **October 2022**, Divyanshu embarked on a transformative journey by joining **IIT Bhilai**. His choice of **Mechatronics Engineering with a Minor in Computer Science** was deliberate, reflecting his **holistic view of technology**—understanding both **mechanical systems** and **computational intelligence**.

Maintaining a **CGPA of 8.75**, Divyanshu represents a new breed of **interdisciplinary technologists**, understanding that **true innovation happens at the intersection of different domains**.

Pioneering Projects: More Than Just Code

Krishi AI: Agricultural Revolution

His **plant disease detection** project demonstrates his commitment to solving critical challenges. Achieving **99.14% accuracy**, he showed how **AI can revolutionize agriculture**.

Robotics and IoT Innovations

His projects like **Nurse Bot** and **Smart Room Guard** reveal his vision of technology as a **tool for improving human life**, focusing on **autonomy, monitoring, and assistance**.

Leadership and Community Impact

- Led **teams** in competitive programming workshops.
- Mentored **200+ students**.
- Contributed to **open-source projects**.
- Active in **robotics and film production clubs**.

Competitive Programming: A Proof of Excellence

- **Codeforces Specialist (1569 rating).**
- **CodeChef 3-star rating (top 0.86% in India).**
- **4th rank in the Ingenuity Individual Programming Contest.**

Personal Philosophy and Future Vision

What sets Divyanshu apart is not just his **technical prowess** but his **holistic approach** to technology. He sees **coding and engineering** as powerful tools to **solve real-world problems**.

His **online presence** on platforms like **GitHub, LinkedIn, and his personal website** reflects his belief in **transparency, continuous learning, and community contribution**.

Contact Details

- 📧 **Email:** divyanshup@iitbhila.ac.in
- 🌐 **Website:** [Divyanshu Prakash](#)
- 🔗 **LinkedIn:** [LinkedIn](#)
- 🐙 **GitHub:** [divyanshu-prakash-rx (Divyanshu Prakash)](#)
- 🏠 **Address:** Bihar, India

The Road Ahead

As he continues his journey at **IIT Bhilai**, Divyanshu represents the future of technology—**interdisciplinary, innovative, and deeply committed to making a meaningful impact**. From a **small town in Bihar** to the halls of IIT, he is writing a story of **potential, perseverance, and purpose—one line of code at a time**.