Ankita Vilas Pimpalkar

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EDUCATION

George Washington University Washington, DC, USA

Masters in Computer Science Aug 2024 – Present

Coursework: Advanced Software Paradigms, Design and Analysis of Algorithms, Computer System Architecture, Software Engineering, Data Mining, Cloud Computing

Chandigarh University Chandigarh, India

Bachelor of Engineering in Computer Science and Engineering Aug 2016 – Aug 2020

Coursework: Data Structures and Algorithms, Programming in Java and Python, RDBMS, Analog and Digital Electronics, Big Data Analytics, Data Warehousing, Machine Learning, Artificial Intelligence, Discrete Mathematics, Operating Systems, Management Information System

PROFESSIONAL EXPERIENCE

AI/ML & Model-Based Systems Engineering Intern, George Washington University Feb 2025 – Present

- Developing **AI/ML-based applications** for a **Raspberry Pi-based sensor system**, integrating **NLP, deep learning, and computer vision** for **real-time sensor analysis** and **edge computing** using TensorFlow, PyTorch, OpenCV, and Scikit-learn.
- Collaborating with **Prof. Eric Dano** to integrate **Siemens Model-Based Engineering** (MBE) tools such as System Modeling Workbench and Teamcenter, supporting structured system design and API development.

Full stack Developer, Freelancing (Stealth Startups - Alternative Structure Group, Friends-Square, Go-Scale) Aug 2022 – May 2024

- Led **technical roadmap development** and provided **strategic recommendations** on technology stacks for **scalability**. Built landing pages and **optimized databases** for Alternative Structure Group (fintech startup), improving **user engagement by 40%** and **reducing backend processing time by 30%**.
- Accomplished new features and **optimized backend functionality** for Friends-Square, a New Delhi-based psychology firm, improving system responsiveness by **35%** and enhancing overall user experience.
- Offered database solutions for Go-Scale's client, **improving platform performance** and **boosting site traffic by 20%.**

Programmer Analyst Trainee, Cognizant Technology Solutions, Pune, India June 2021 – July 2022

- Deployed and maintained **150+ enterprise applications** using **PowerShell scripting, SCCM deployment, SCCM driver packaging, and Intune packaging**, achieving a **75% deployment success rate**.
- Automated **silent installations** using VB-Scripts and Batch-Scripts for applications such as **Adobe Acrobat, Microsoft Office Suite, AutoCAD, and Citrix Receiver**, reducing **installation time by 50%**.
- Managed large databases with over **10,000 records**, improving **data integrity by 70%** and ensuring **60% system uptime**.

Web Developer Intern, Root Kings, Pauni, India Nov 2020 – May 2021

- Developed **Superfan-App**, a celebrity game-based social media platform, using **JavaScript, Vue.js, and CSS**, enhancing **user experience and engagement**.
- Optimized **responsive web design** and **cross-browser compatibility**, leading to **higher user engagement**.

PHP Developer Intern, Talent Anywhere Services, Pune, India Aug 2020 – Nov 2020

- Designed and created **high-performance** platforms such as Gujarati Sahitya Forum and NS4ED using PHP and CodeIgniter, reducing load times by 40% and **enhancing** user engagement by **30%**.
- Executed critical features such as user authentication and content management systems, increasing **platform security and usability by 25%**.

Junior Java Developer Intern, Maxgen Technologies, Pune, India Jan 2020 – Jun 2020

- Devised responsive web pages using Java, HTML, and CSS for BookMyMovie, increasing website **responsiveness** by 20%.
- Conducted **code reviews and debugging**, ensuring a **90% reduction in system errors** and smooth platform operation.

PHP-Trainee, Centre for Development of Advanced Computing, Chandigarh, India May 2018 – Jun 2018

- Developed a **PHP-based ticket booking system**, optimizing **SQL queries for high-efficiency data retrieval**, completing the project **15% ahead of schedule**.

SKILLS AND TECHNOLOGY

Languages: Java, Python, PHP, PowerShell Scripting, HTML, CSS, JavaScript, SQL

Databases & Frameworks: MongoDB, MySQL Workbench, CodeIgniter (PHP Framework), Vue.js

Data Science & Machine Learning: Data Analysis Libraries - Pandas, NumPy, Matplotlib; Machine Learning - Linear and Non-Linear Models, Random Forest, SVM, Neural Networks, Unsupervised Methods (Dimensionality Reduction, Clustering)

Development & Deployment Tools: Figma, Visual Studio Code, MS Office, SCCM, Intune, GitHub

Soft Skills & Leadership: Analytical Thinking, Cross-Functional Collaboration, Process Optimization, Strategic Planning, Decision-Making

PROJECTS

- **Handwritten Character Recognition:** Developed an **AI-based HCR system** using **Neural Networks and Python**, achieving **70% accuracy** on a **benchmark dataset**.
- **Personal Assistant:** Built a **standalone NLP-powered assistant** enabling **voice-based task creation and event scheduling** for improved **user automation**.