# SOWMIYA MEENA SIVA SUBRAMANIAN

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## PROFESSIONAL SUMMARY

Accomplished software developer and technology researcher with 8+ years of experience in commercial and research sectors. Proficient in a wide array of programming languages, web technologies, and mobile app development frameworks. Adept at leveraging data analysis and machine learning for informed decision-making. Consistently embraces emerging technologies and methodologies to stay at the forefront of the rapidly evolving tech landscape.

## EDUCATION

**Bachelor of Technology in Information Technology (First Class),** Anna University, India 2010–2014

## TECHNICAL SKILLS

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|---|---|
| **Front-End** | HTML, CSS, JavaScript, jQuery |
| **Mobile Development** | Flutter, Android Studio |
| **Back-End** | Python, ASP.NET, C#, PHP |
| **Databases** | MySQL, SQL Server, Firebase |
| **Web Technologies** | RESTful API Integration, JWT, Firebase Authentication |
| **Version Control** | Git, TFS |
| **Development Tools** | Visual Studio Code |
| **Data Analysis/ML** | Pandas, NumPy, Scikit-learn<br>Random Forest, Support Vector Machines (SVM), Naive Bayes, Logistic Regression |
| **AI Algorithms** | TGAN and SynthPop |
| **Data Visualization** | Matplotlib, amCharts, Seaborn |
| **Cloud Services** | Firebase (Authentication, Storage), Google cloud platform |
| **Design Patterns** | MVC, 3-Tier Architecture |

## WORK EXPERIENCE

**Research Engineer | Nanyang Technological University, Singapore** **Oct 2018 - Present**

- Spearheaded multiple research and development projects, significantly contributing to the field of health-tracking applications.
- Designed and implemented iOS and Android applications using Flutter, Dart, and Firebase technologies.
- Developed a web and mobile-based application named "UCHESK (Uberise Coaches for Health Services and Knowledge)" using php, python and jQuery.

- Implemented data anonymization AI algorithms such as TGAN and SynthPop using Python for a private taxi company, ensuring privacy while maintaining data patterns.
- Utilized research data to analyze and predict participant health status through machine learning models, including Random Forest and Support Vector Machines (SVM).
- Integrated motion sensors and managed real-time data processing using Python for individual health and activity performance tracking.
- Played a pivotal role in creating prototypes and scenarios for optimizing homecare and caregiving services for the elderly.
- Demonstrated proficiency in project management, overseeing SAs and interns, procurement, and proposal writing, thereby enhancing operational efficiency.

**Software Developer | Cognizant Technology Solutions, India** **Aug 2014 - Apr 2018**

- Led major enhancements in the "Client Central" project for BB&T, a US bank, ensuring world-class service delivery to customers.
- Developed and enhanced applications using ASP.Net, C#, WPF and WCF.
- Collaborated with cross-functional teams and participated in full project life cycle, from requirement gathering to deployment.
- Managed end-to-end operations, including account opening and servicing, resulting in increased efficiency and customer satisfaction.
- Conducted rigorous quality assurance through test case execution, code review, and impact analysis, meeting high-quality standards.
- Successfully supported System Integration Testing (SIT), User Acceptance Testing (UAT), and Regression Testing phases, ensuring smooth project releases.
- Organized and facilitated daily team meetings, logging, tracking, and reporting defects, demonstrating strong project management skills.
- Engaged in weekly client calls, addressing project clarifications promptly and providing effective solutions.

## CERTIFICATIONS

**Python for Data Science and Machine Learning Bootcamp**, Udemy Jun 2023 – Oct 2023

## PUBLICATIONS

**Meena, S. S. S.,** Bao, H., Pai, S. G. S., Singh, N., Tan, K.Z., Pham, B. T. P., Theng, Y. L., & Lee, E. W. J. (2024) Enhancing Older Adults Physical Activity and Well-being: Design and Implementation of Digital Health App (SingaporeWALK) for Active Ageing. This paper is under review at JMIR. (2nd Round Review)

Cao, Y., **Meena, S. S. S**., Erdt, M., Mohamed Riaz, M. T. M. A., Yi, J., & Theng, Y. L. (2023). Evaluation of supporting tools for health coaches providing nutrition and exercise coaching to older adults in Singapore. 56th Hawaii International Conference on System Sciences (HICSS 2023), 2921-2930.

## NOTABLE ACHEIVEMENTS

Secured 1st place for the Idea provided in "IDEATHON" event conducted at Cognizant.

- Idea title: "Customer Sentiment Analysis"
- Idea Description: Analysing the customer comments or feedback provided through any medium (text or voice) and categorizing it for valuable insights.
- Tools used: IBM Watson tool NLP (Natural Language Processing).