Sairamasubash Muppalaneni

+1 (630) 923-2281 | [smuppalaneni2000@gmail.com](http://smuppalaneni2000@gmail.com) | Mundelein, IL | [LinkedIn](https://www.linkedin.com/in/subash-muppalaneni-b3955b218/) | [Github](https://github.com/Sairamasubash) | [Website](https://sairamasubash.github.io/) |

# PROFILE SUMMARY

Data scientist/AI-ML Engineer with a strong background in data analysis and expertise in Python, SQL, and advanced techniques for processing large datasets and delivering actionable insights. Proficient in Machine Learning (ML), Artificial Intelligence (AI), database design, and software development. I am eager to contribute to innovative projects in these fields while collaborating with seasoned professionals to push the boundaries of possibility.

# SKILLS

* **Programming Languages:** | Java | PHP | C | C++ | ASP.Net | C# | XML | Python | R | Rust | OCaml |
* **Algorithms:** | Machine Learning (ML) | Artificial Intelligence (AI) | Natural Language Processing (NLP) | Large Language Models (LLMs) | Deep Learning | Data Science | Data Analysis |
* **Web Technologies:** | HTML | CSS | JavaScript | Angular JS | React JS |
* **Databases:** | Oracle | SQL Server | MongoDB | MySQL |
* **Operating Systems:** | Windows | UNIX | LINUX |
* **Development Tools:** | Visual Studio | Xcode | RStudio | GIT | PyCharm CE | Google Colab | Unity | Jupyter Notebook |
* **Microsoft Office:** | MS Excel | MS Word | MS PowerPoint | MS Office Suite |

# EDUCATION

## University of Illinois Urbana-Champaign Champaign, Illinois, USA | Aug 2022 – Dec 2023

## Master of Science, Computer Science

* Relevant Coursework: Artificial Intelligence, Machine Learning (in depth into Computer Vision), Python, Computer Networks, Operating Systems, Real-Time Systems, and Programming Languages/Compilers (OCaml)

## Northern Illinois University DeKalb, Illinois, USA | Aug 2018 - May 2022

## Bachelor of Science, Computer Science

## An EMPHASIS IN ENTERPRISE SOFTWARE

* Minor in Business Administration
* Relevant Coursework: Object Oriented Programming, Java, C#, .NET, Computer Architecture/System Organization, C, C++, Database Systems (SQL), Data Structures/Algorithms Analysis, and Web Development (HTML, CSS, JavaScript – React, Angular)

**Rolling Meadows High School Rolling Meadows, Illinois, USA | Aug 2014 – May 2018**

**Carl Sandburg Junior High School Rolling Meadows, Illinois, USA | Aug 2012 – May 2014**

# AWARDS & CERTIFICATIONS

Machine Learning Specialization Certificate | IBM AI Developer Specialization Certificate | IBM Data Science Specialization Certificate

R Programming Certificate | Rust Programming Certificate | Natural Language Processing Certificate | LLM Engineer Certificate

Quantum Computing Certificate | 3.97 GPA at Northern Illinois University | 3.62 GPA at the University of Illinois, Urbana-Champaign

Dean’s list in every semester at Northern Illinois University | Summa Cum Laude at Northern Illinois University

# EXPERIENCE

**TekAssembly Corporation | Vernon Hills, IL, USA | Jan 2024 - Present**

**Junior Data Scientist/AI-ML Engineer**

Building a model to predict the likelihood of customer payments was a portion of the project that me and a few of my colleagues were tasked with. We developed a machine learning model in Python using Pandas, NumPy, and Scikit-Learn to predict customer payment likelihood based on historical transaction and geographical data. To achieve this, we extracted the data that was stored in MySQL and MongoDB, and then we cleaned/processed the data using SQL for feature engineering.

* Utilized Python libraries such as Pandas and NumPy for data analysis and manipulation.
* Worked with various data sources, including MySQL and MongoDB, for data extraction and integration.
* Actively participated in day-to-day meetings and status meetings with project managers and developers to ensure smooth project delivery.
* Developed classification machine learning models using Python to predict customer payment likelihood using historical and geographical data.
* Used R to build machine learning frameworks to support time series forecasting.
* Provided technical support for Python scripts, troubleshooting and resolving issues reported by end users.
* Designed and implemented SQL-based data processing and querying techniques to extract actionable insights for business decision-making.
* Prototyped and deployed text based LLM models to automate and enhance customer service operations.
* Automated testing workflows by writing Python scripts, improving operational efficiency.
* Collaborated with cross-functional teams to gather user requirements and developed effective technical solutions.

**3D HoloGroup, Inc | Fort Lauderdale, FL, USA | Jun 2023 – Nov 2023**

**Augmented Reality Developer**

### Creating an augmented reality headset is a project that my colleagues and I contributed to during my internship as an augmented reality developer. We used the Unity platform and the C# programming language. For this project, me and my colleagues contributed to programming an augmented reality headset that helps people who can’t speak by speaking for them.

• Assisting with day-to-day tasks and projects within my assigned department.  
• Conducting research, analyzing data, and preparing reports.  
• Participating in team meetings and contributing ideas and insights.  
• Collaborating with team members on specific initiatives.  
• Learning and applying new skills and technologies relevant to my role.  
• A large focus on web development, databases, and AI.

# COMPLETED PROJECTS

### **University of Illinois at Urbana-Champaign Projects Aug 2022 – Dec 2023**

**Technologies Used: Python, C, Linux, HTML, CSS, JavaScript, AI, and ML.**

### **Fault Tolerance Measurement/Solo Research Project -** The Fault Tolerance Measurement is a solo research project that I completed using the C programming language. For this project, I measured the fault tolerance of a Linux operating system by creating and injecting kernel module faults.

### **COPA Implementation on ns-3/Group Research Project -** The COPA Implementation on ns-3 is a group research project that me and my group completed using the Python and C programming languages. For this project, me and my group implemented the COPA congestion control protocol on ns-3.

### **Ticketing Website/Group Programming Project -** The ticketing website is a group programming project that me and my group completed using CSS, HTML, and JavaScript. For this project, me and my group implemented a ticketing website similar to ticket master.

### **3D Reconstruction from RGB Image Captures/Group Research Project -** 3D Reconstruction from RGB Image Captures is a group research project that me and my group completed using the Python programming language. For this project, me and my group used a lot of RGB image captures and generated a 3D reconstruction from them.

### **Northern Illinois University Projects Aug 2018 – May 2022**

**Technologies Used: ASP.Net, C#, HTML, CSS, JavaScript, Java, C, C++, PHP, and SQL.**

### **A Reddit Clone/Pair Programming Project -** The Reddit Clone is a pair programming project that me and my partner completed using the ASP.NET framework. For this project, we used .NET’s design view and the C# programming language to create an interface that looks exactly like the Reddit website or the Reddit App.

### **Karaoke Club’s Database/Group Programming Project -** The Karaoke Club’s Database is a project that me and my group completed using HTML, PHP, CSS, and SQL. For this project, we created a database that stores all the important information about a Karaoke Club.

### **Prisoner’s Dilemma Game/Solo Programming Project -** The Prisoner’s Dilemma Game is a Solo programming project that I completed using the Java programming language. For this project, I created a Java representation of the very famous game known as Prisoner’s Dilemma.

### **Personal/Certification Projects Jan 2024 – Present**

**Technologies Used: HTML, CSS, JavaScript, Python, C++, LLMs, NLP, AI, and ML.**

**Brochure Generator/Certification Project -** During the first week of the LLM Engineer Certification, the course instructor taught us how to make an AI-powered brochure generator that scrapes and navigates company websites intelligently.

**Multi-Modal Customer Support Agent/Certification Project -** During the second week of the LLM Engineer Certification, the course instructor taught us how to build a multi-modal customer support agent for an airline with UI and function calling.

**Hugging Face Datasets Incorporation/Certification Project -** During the third week of the LLM Engineer Certification, the course instructor taught us how to incorporate Hugging Face datasets with both open source models and frontier models.

**Code Converter/Certification Project -** During the fourth week of the LLM Engineer Certification, the course instructor taught us how to make AI that converts Python code to optimized C++ code (while also boosting the code performance by a lot).

**AI Knowledge Worker/Certification Project -** During the fifth week of the LLM Engineer Certification, the course instructor taught us how to build an AI knowledge worker using RAG to become an expert on all company-related matters.

**Product Price Predictions - Frontier Models/Certification Project -** During the sixth week of the LLM Engineer Certification, the course instructor taught us how to predict product prices from short descriptions using frontier models.

**Product Price Predictions - Open Source Models/Certification Project -** During the seventh week of the LLM Engineer Certification, the course instructor taught us how to execute a fine-tuned open-source model to compete with frontier models in price prediction.

**Autonomous Multi-Agent System/Certification Project -** During the eighth week of the LLM Engineer Certification, the course instructor taught us how to build an autonomous multi-agent system collaborating with models to spot deals and notify us of special bargains.

### **Portfolio Website/Personal Project -** The Personal Portfolio Website is a solo programming project that I completed using HTML, CSS, and JavaScript. For this project, I created my own portfolio website.