

# JOAO VITOR BARROS DA SILVA

State College, PA

☎ 814-308-3273

✉ [jvitorbarros15@gmail.com](mailto:jvitorbarros15@gmail.com)

🌐 [linkedin.com/in/joaovi](https://www.linkedin.com/in/joaovi)

🐙 [github.com/jvitorbarros15](https://github.com/jvitorbarros15)

## Education

**The Pennsylvania State University, University Park**

May 2026

*B.S in Computer Science and Entrepreneurship and Innovation Minor*

## Technical Skills

**Programming & Development:** Python, JavaScript, Solidity, SQL, React.js, Node.js, Firebase, APIs, HTML/CSS.

**Machine Learning & Cloud Technologies:** PyTorch, LangChain, Scikit-learn, Pandas, NumPy, AWS.

**Tools & Productivity:** Figma, Jira, Notion, WordPress, HubSpot, Microsoft 365.

## Experience

**Happy Valley LaunchBox | Penn State's Startup Accelerator**

May 2023 – July 2024

*Innovation and Operations Intern*

*State College, Pennsylvania*

- Spearheaded the integration of HubSpot, crafting a user-friendly website interface to **streamline data visualization** and optimize communication processes.
- Automated email communications and data extraction using **AI in Power Automate**, increasing operational efficiency and saving **30% of time**, allowing interns to focus on strategic initiatives.
- Judged startup competitions, providing critical assessments and strategic insights to entrepreneurs, contributing to their growth and success.

**Swift | Sustainable AI Initiative**

January 2022 – April 2022

*Founder*

*State College, Pennsylvania*

- Led a cross-functional team of seven members in a university-wide AI development competition, fostering collaboration across diverse backgrounds.
- Conceptualized and developed an AI-driven solution to enhance solar and wind energy **efficiency by 35%+**, contributing to sustainable energy advancements.
- Achieved **Top 20%** ranking among university-wide competitors, recognized for innovation and impact in AI-driven sustainability.

**Blockchain Innovation Lab | Penn State University**

February 2025 – Present

*Research Assistant*

*State College, Pennsylvania*

- Conducting research on **Secure Decentralized Quantum Computing**, exploring the integration of quantum computing with blockchain for enhanced security, scalability, computational power, and to advance practical implementations of quantum-blockchain systems.
- Collaborating with **Cosmos Network** to develop interoperable blockchain solutions, focusing on secure cross-chain communication and decentralized infrastructure.

## Projects (AI and Blockchain)

**Neural Network Digit-Classifer | Pytorch, Matplotlib**

November 2024

- Developed and implemented a **Convolutional Neural Network (CNN)** to accurately classify handwritten digits using the MNIST dataset.
- Utilized PyTorch for building and training the model and Matplotlib to visualize the training progress and results.

**AI Personal Assistant | Python, Speech Recognition, LLMs, Wikipedia API, Google Cloud TTS, pyttsx3**

October 2023

- Designed and built a voice-activated AI Personal Assistant using Python and advanced APIs for natural language understanding and internet access.
- Integrated speech recognition to enable real-time command processing and **LLMs** for generating contextually relevant responses and Incorporated **Google Cloud TTS** enabling the assistant to vocalize responses.
- Implemented Wikipedia API access, allowing the assistant to retrieve and summarize relevant information dynamically.

**Full Stack Decentralized Application | React.js, Node.js, Firebase, Solidity**

January 2025 - Present

- Developed a **hybrid full-stack application** combining **centralized and decentralized technologies**.
- Built the centralized backend using Node.js and Firebase, incorporating real-time database functionalities.
- Leveraged blockchain tools like Web3.js, Ethers.js, Thirdweb, and web3.storage to manage **decentralized transactions, storage, and smart contract deployment**

## Leadership / Extracurricular

**Nittany Entrepreneur Society**

January 2024 – Present

*Web Development Team and Outreach*

- Designed and developed the club website, initially using WordPress and later transitioning to React. The website serves as a platform to showcase events, club history, and merchandise, and engaging a **community of 700+ members**
- Led member recruitment efforts and coordinated with guest speakers to enhance club engagement and visibility.