

ABHINAV MAMIDIPAKA

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Education

The Pennsylvania State University – University Park, PA

Major: Bachelor of Science in Computer Science – Dean's List Scholar

Class of 2022

Minors: Math, Technology Based Entrepreneurship and Innovation

Relevant Coursework: Data Structures and Algorithms, Distributed Systems, Systems Engineering, Data Bases, Object Oriented Programming

Technical Skills: Python, Java, HTML, C++, Ruby, Artificial Intelligence, PyTorch, Pandas, Salesforce, JIRA, Databases

Work Experience

Lucid Motors – Senior Software Development Engineer

09/2023 – Present

- Designed and co-architected a robust automation system that supports multiple teams and initiatives (17h -> 4h, 75% less time taken)
- Collaborated with the cyber security team to ensure ironclad key management and security of developer keys for the TCU and ECU
- Simulated real world usage of TCU to evaluate performance/software metrics to analyze using Pandas to improve using learning models
- Enhancing developer systems (standalone and organization) based on new product builds/requirements (containers -> NFS/VM)
- Optimizing database architecture using MongoDB to boost data aggregation and querying rates resulting in a 40% increase
- Implementing rigorous testing protocols for all vehicle OTA updates ensuring 99% success rate in update deployments
- Developed AI-based diagnostic tools for system health monitoring, reducing system downtime by 60% in AI/ML powered environments
- Engineering robust AI diagnostic tools to identify and address system failures reducing system downtime by 60%

Harmony Protocol – Web3 Software Development Engineer II

12/2022 – 07/2023

- Launched/created the world's first revolutionary platform that allows users to connect a Web3 name with a browsable Web2 domain, unifying their digital identity, 1.country; [press release](#); [article](#)
- Led a team of 6 engineers to work towards the same goal and launch a product within 3 months
- Implemented a caching mechanism that improved the user experience and increased page load speed by 34%
- Created the first iteration of browser extensions for 1.country for users to ease user accessibility

Arda International Corp. – Full Stack Developer

08/2022 – 12/2022

- Continuous improvement of the product and its framework to ensure the ongoing value of the business's solution
- Working very closely with the directors, founders, and senior management of the company to cultivate and achieve the strategic objectives and ambitions of the business while maintaining a full understanding of the relationship between the business and its customers past, present and future

Applied Research Lab – R&D Engineer

11/2021 – 05/2022

- Developing and refining a python-based analytic pipeline streamlining the ingestion of semi structured text datasets through a series of AI and NLP techniques
- Refining an interactive browser-based web-application for rapid knowledge discovery and data triage
- Developing, performing automated data processing techniques and statistical analysis

Tesla Motors – Vehicle Software Intern

05/2021 – 08/2021

- Contributing to cross-functional system architecture, software system design, and analytics applications
- Configured the gateway within the Simulator by adding ~100 signals to ensure success during automation
- Developed automation to improving the efficiency of validating the vehicle, reducing manual testing time by ~3 hours per vehicle per release

College of IST – Artificial Intelligence Researcher

01/2021 – 05/2021

- Created, Calibrated, Correlated Social Media Signals of Cyberattacks leading to Chronic Traumatic Encephalopathy
- Scraped data from Twitter Premium API, relevant English-language local and international news articles from the Nexis Uni Database
- Processed datasets containing more than 110,000 tweets and 20,000 full text articles to remove all unnecessary terms to calculate sentiment score analyzing CTE (Chronic Traumatic Encephalopathy)

Blackberry – Technical Intern

06/2020 – 08/2020

- Improved Support Request and Portal Registration experience for all customers by providing an enhanced UI design (ease of use) and leading questions to provide deeper analysis of the problem
- Creating a way to protecting customer data such that the file is only going to be accessible only to employee's that need to access to the customer's data

Leadership Experience

Anthos – Founder/President

Summer 2017 - Ongoing

- Anthos, Greek for blossom, is a streetwear brand which strongly expresses the idea of not conforming to society and rising above adversity. Emphasizing the idea of having simple but elegant clothing to represent streetwear enthusiasts, represented by our signature logo the Lotus, showing how a person can blossom, and rises against their problems and keeps going.
- Managed a board consisting of 7 members, 3 investors and had weekly meetings with at least 10 members to develop ways to fundraise money to developing the business. Profits of the business go towards NAMI, the National Alliance on Mental Illness.

Projects

Scatter Gather Drive [repo](#)

Fall 2020

- Creation and extension of user-space device driver for new Internet service called the Scatter Gather drive using UNIX and C
- Created a peer-to-peer system able to send a series of messages across a network for communication in the form of blocks

Maze ARAI [repo](#)

Fall 2020

- Mobile application utilizing ML models and AI to assess the player's skill level and learn from their gameplay
- Custom build AR engine to renders the maze and integrated CiscoAPI to speed up rendering and game processing

Insta Care [repo](#)

Spring 2020

- Developed a multi-platform (mobile and web) health care app using Python, React, MongoDB, and HTML
- Artificially intelligent application where a doctor was assigned to user based on their symptoms, feelings, and location