

# ABHINAV MAMIDIPAKA

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## OBJECTIVE: Obtain Computer Science Full-Time Starting Fall 2022

### Education

#### The Pennsylvania State University – University Park, PA

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

**May 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, Salesforce, JIRA, Databases

Clubs: Triangle Fraternity (Δ), PyLO, Blockchain, SASA, HackPSU, Sigma Nu Tau (ΣNT)

### Work Experience

#### Applied Research Lab – R&D Engineer

**11/2021 – Ongoing**

- 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 improve the efficiency of validating the vehicle and reduce 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
- Retrieved relevant tweets from Twitter Premium API, and relevant English-language local, national, 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)

#### NASA L'SPACE LUCY Mission – Administration Team Lead

**08/2020 – 12/2020**

- Developed, tested rover mission goals such as navigating through the terrain, capturing objects, utilizing color sensors, and producing audio with astonishing NASA scientists and engineers
- Coordinated with Mechanical and Science team for rover design and development with design engineers making sure, all interfaces were understood completely to develop a perfect plan to go from Earth to Enceladus

#### Blackberry – Technical Intern

**06/2020 – 08/2020**

- Enhanced FAQ to provide easy access to information to reduce questions received by **~20%**
- 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.

#### Programming Club – Founder/President

**Fall 2017 - Spring 2019**

- Empowering **~500 students** under the age of 18 to prepare for careers in Engineering and Technology. Students learned the basics of Java, Python, and HTML in Programming Club.
- Expanded the image of Engineering and Technology professions as a positive force in improving the quality of life and demonstrating the value of diversity and inclusion.

### Projects

#### Non-Linear Classifiers

**Spring 2022**

- Created various hyperparameters (e.g., the type of kernel and regularization parameter for SVM; tree method, max depth, number of weak classifiers for XGBoost; number of estimators and min impurity decrease for Random Forests)
- Computed test error rates after training various classifiers with certain hyperparameter settings computer after each trained set

#### Maze ARAI

**Fall 2020**

- Developed a mobile game that is at the same skill level as the player such that the player doesn't feel unintelligent
- Using machine learning and artificial intelligence the game determines the skill level of the player and learn from their gameplay
- Custom build AR engine that renders the maze among household items, CiscoAPI to speed up rendering and game processing

#### Insta Care.

**Spring 2020**

- Developed a multi-platform (mobile and web) health care app using Python, React, MongoDB, and HTML
- An artificially intelligent application where a doctor will be assigned to user based on their symptoms, feelings, location
- Included a multibody system for users to indicate any specific symptom they have and get instant care