

# Shlok V. Dholakia

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## Objective

Talented, highly motivated and results-driven computer engineering student with a passion for working on innovative technologies in a dynamic environment. Detail oriented for design and coding, leading to powerful design optimization and debugging abilities. Effective team leader passionate about creating cross-functional collaboration and implementing synergistic solutions. Experienced in Python, Java, C++, machine learning, TensorFlow, PyTorch and natural language processing in individual and group projects. Enthusiastic and very hardworking candidate seeking a Summer 2023 internship.

## Education

### Georgia Tech | Atlanta, GA

*Expected Graduation, May 2025*

BS in Computer Engineering, minor in Engineering and Business, GPA 4.0

- Specializing in Distributed System and Software Design and Information Internetworks
- Math courses: Honors Linear Algebra with Abstract Vector Spaces, Multivariable Calculus, Differential Equations, Statistics and Applications
- Spring semester courses: Digital System Design, Object Oriented Programming, Circuit Analysis, research on algorithm design and Database

## Experiences and Projects

### Automated Algorithm Design (VIP Research)

*January 2023 - Present*

- Worked with Genetic Algorithms, Genetic Programming, and ML to develop Evolutionary Multi-objective Algorithm Design Engine (EMADE).
- Designed EMADE using Python libraries scikit-learn, TensorFlow, PyTorch. Incorporated mass datasets through MySQL.

### Website Building

*Fall 2022*

- Utilized HTML/CSS languages to create a personal webpage imitating Google aesthetic. Directly linked to personally developed profile page.

### Gold Nanoparticle Research, Carnegie Mellon University

*June 2021 – August 2021*

*Team-based research at CMU. Investigated the effects of various ligands on the efficiency of catalysis to optimize hydrogen fuel cells.*

- Analyzed data regarding various sizes of compound ligands ranging from 5 mcm to 1 mcm in size. Final presentation of results at Scientific Symposium and publication of article in 2021 PGSS CMU journal. Personally researched MVK mechanism in suboptimal conditions.

## Programs/Achievements

### Faculty Honor's List (4.0 GPA) | Denning Technology and Management Program Admit

*2023*

**FBLA Marketing: #1 in Nation | AIME Qualifier | USA Physics Olympiad (Bronze) | HS Valedictorian of class of 860 | National Merit Finalist and \$2500 Scholarship | President of Math Honors Society | President of Physics Club | Nominated to Presidential Scholars Program**

*2022*

**FBLA Entrepreneurship: #3 in Nation | Pennsylvania Governors School for the Sciences (Carnegie Mellon University)**

*2021*

**FBLA Marketing: #1 in Nation | Vice President of Parkland Math League Club**

*2020*

**Science Olympiad Circuit Lab: #1 in Nation | Science Olympiad Density Lab: #2 in Nation (Cornell University)**

*2019*

## Leadership

### Parkland Schools Science Olympiad Invitational 2021 and 2022 | Allentown, PA

*October 2020 – March 2022*

#### Head of Coordination Committee

- Led invitational planning through creating formal schedule for all Division B teams to follow. Delegated tasks to each committee including emailing instructions to external event supervisors, contacting sponsors, and marketing. Also created and judged Density Lab test.
- Responsible for overall success of invitational competition. Over 60 teams participated, and we raised over \$2,500 for the school.

### Conrad Innovation Challenge 2021 | Allentown, PA

*September 2020 – February 2021*

#### Team Captain

- Directed team of five in designing business, financial, and scientific reports to create used-cooking-oil-to-biofuel generator.
- Earned title of Conrad Innovators. Applying for patent.

## Organizations

### Georgia Tech Data Science

*August 2022 – Present*

- Actively involved in workshop at Georgia Tech. Review fundamentals and intricacies of data science. Culminates with end-of-year project.

### Big Data, Big Impact

*August 2022 – Present*

- Designed ML algorithm to detect Parkinson's based upon characteristics such as chromosomal genotypes.
- Responsible for data analysis and integrating with platform development and data vision.

### Institute of Electrical and Electronics Engineers (IEEE)

*January 2023 – Present*

- Active member of IEEE. Competed in RoboTech hackathon and designed Mechanical Resuscitation Device (MRD) utilizing linear actuator to automate chest compressions (CPR) and ease stress on healthcare workers.

### Eta Kappa Nu Honors Society (HKN)

*January 2023 – Present*

- Inducted as a member of the prestigious Eta Kappa Nu honors society, recognized for academic excellence in the field of electrical and computer engineering.

## Skills

**Programming:** Python, Java, C++, Vex Robotics, Arduino, Google Colaboratory, SQL, Database, TensorFlow, PyTorch, NumPy, Pandas

**High School Clubs:** Robotics, Math Honor Society, Math League, Future Business Leaders of America (FBLA), Science Olympiad

**Communication:** Public Speaking, Technical Reports, Presentations (PA Governor's School)

**Languages:** Spanish (intermediate), English (fluent), Hindi (conversational), Gujrati (conversational)