

# MOHAMMAD AHMAD KHAN

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## EDUCATION

### **University of Texas at Dallas**

*Dual Degree – Mathematics (Statistics Concentration) and Neuroscience (Medical Concentration)*

**Dallas, TX**  
*Class of 2026*

- GPA: 3.856
- Member of the Hobson Wildenthal Honors College.
- Relevant Coursework: Advanced Calculus, Abstract Algebra, Statistics, Organic Chemistry.

### **Naperville North High School**

**Naperville, IL**  
*Class of 2022*

- GPA: 4.661/4
- Awarded Illinois State Scholar, National Merit Scholar, member of National Honor Society, National Latin Exam 2020 Gold Medal, State Seal of Biliteracy in Latin, State Commendation towards Biliteracy in German.

## WORK EXPERIENCE

### **Furche Research Group, University of California at Irvine**

*HSOP Intern*

**Irvine, CA**  
*August 2021 – Present*

- Researching Kasha's rule in the field of non-adiabatic molecular dynamics by simulating and analyzing molecular motion and interaction.
- Working with Linux systems and bash scripts to perform necessary calculations and analyses on UCI computer banks.
- Currently preparing a paper for publication.

### **Naval Surface Warfare Center Crane**

*SEAP Intern*

**Crane, IN**  
*June 2022 – July 2022*

- Worked on adapting an NVIDIA Xavier module as a companion computer for autonomous drone navigation.
- Utilized SOLIDWORKS to modify existing designs as well as to create new parts to mount computer and sensors onto an existing quadcopter.
- Worked with MAVROS, MAVLink, and APMPPlanner 2.0 to develop autonomous navigation for the quadcopter.
- Also continued work on Jackal UGV project from the previous summer.

### **Naval Surface Warfare Center Crane**

*SEAP Intern*

**Crane, IN**  
*June 2021 – July 2021*

- Worked with Jackal UGV autonomous robots to defuse simulated IEDs.
- Used ROS, Python, and OpenCV for computer vision and autonomous navigation routing.
- My team won the Director's Cup, the final competition at the end of the internship.

## LEADERSHIP

### **Naperville City Council Transportation Advisory Board**

*Student Representative*

**Naperville, IL**  
*November 2020 – May 2022*

- Appointed by the board to bring the student perspective regarding transportation issues to board meetings.

### **NNHS Certamen Team**

*Captain*

**Naperville, IL**  
*November 2020 – April 2022*

- Coordinated team meetings, practices, and competitions during absence of teacher sponsor.
- Led team to regional win and contention for state title and arranged team participation in multiple invitational contests.

## ADDITIONAL INFORMATION

*Skills:* Intermediate Latin and German, Graphic Design, Stock/Cryptocurrency Trading  
*Computer:* Python, web development, C++, SOLIDWORKS/CAD Modeling, ROS, GitHub  
*Clearance:* DoD Secret-level  
*Interests:* Rugby, Language Acquisition, Personal Fitness