

# Kevin Zou

<https://nkzou.github.io/>

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## Education

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- **University of Michigan, Ann Arbor** Ann Arbor, MI  
*Bachelor of Science in Computer Science; GPA: 3.43; Expected Graduation May 2022* *Sep. 2018 – Present*
  - **Relevant Coursework:** Discrete Math, Data Structures & Algorithms, Computer Security, Database Management Systems, Intro Artificial Intelligence, Game Design & Development, Software Engineering, Intro Autonomous Robotics, Computer Vision, Programming Paradigms, User Interface Development, Theory of Computation, Operating Systems
- **Thomas Jefferson High School for Science and Technology (TJHSST)** Alexandria, VA  
*Advanced Studies Diploma; GPA: 4.224* *Sep. 2014 – June 2018*
  - **Relevant Coursework:** AP Computer Science A, Computer Vision, Artificial Intelligence, Parallel Computing, Web Dev

## Programming Skills

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- **Languages:** C/C++, C#, HTML/CSS/Javascript, Java, Typescript, Python, Go
- **Technologies:** Angular, Django, Node.js, OpenCV, Unity Engine, GraphQL, AWS, CircleCI, TFS, Agile, Kerberos, Trino/Presto SQL

## Work Experience

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- **Viasat** – Software and Data Engineer Intern Germantown, MD · May 2021 - August 2021
  - **GraphQL-Connector:** Benchmarked multiple GraphQL servers as research and developed a GraphQL interface for accessing data from company databases. Worked on backend server logic for authenticating and retrieving data, as well as logic for translating GraphQL queries into SQL for compatibility with Trino/Presto SQL. Used Docker for containerization and development.
  - **Utilized:** Amazon S3, Docker, Node.js, Typescript, GraphQL, Kerberos SSO, Go / Golang, Python
- **QuickenLoans** – Software Developer Intern Detroit, MI · June 2020 - August 2020
  - **The Answer:** Worked on an internal web app for quickly finding information relevant to business operations, ranging from financial policies to tech support. Contributed code and fixes for the Backend-for-Frontend (BFF) and Angular Frontend. Also contributed IaC code setting up AWS permissions for an unreleased product.
  - **Utilized:** AWS ECS/Lambda, Terraform, Angular, HTML/CSS/JS, C#, .NET Core, MongoDB
- **Kashmir World Foundation** – Image Processing Intern Alexandria, VA · Sep. 2016 - June 2018
  - **MiSHELL Drone Project:** Programmed drones to autonomously track sea turtles for animal conservation. I organized image data sets, trained neural networks to recognize and classify turtle tracks, and worked on optimizing the image recognition to run locally on a custom-built drone.
  - **Utilized:** Python, Dronekit, and Darknet Computer Vision Library. Trained using Google Cloud Platform

## Research Experience

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- **Computational Biology Research Mentorship** Fairfax, VA  
*George Mason University* *June 2017 - June 2018*
  - **Project:** Memetic Evolutionary Algorithms for De-novo Protein Structure Prediction
  - **Mentor:** Dr. Amarda Shehu, Computer Science Department @ <https://cs.gmu.edu/~ashehu/>
  - **Topics:** Computational biology, genetic algorithms, de novo protein structure prediction, stochastic optimization

## Projects

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- **UM::Autonomy, Autonomous Boat Team, University of Michigan:** Programmed drivers for sensors and embedded systems on an autonomous boat, in addition to processing sensor data for use in other systems within the boat.  
**Utilized:** Python and C++ with the ROS robotics library.
- **Open-Source Game Development (<https://nkzou.github.io/>):**
  - **Games:** Created a few games, including Snowbound, a 2D physics platformer with teleportation mechanics themed around Christmas and Santa. (C#, Unity Engine)
  - **Modding/Automation:** Writing short video game scripts and reverse-engineering tools to modify and emulate games. (AutoHotKey, Node.js)
  - **Game Client Emulation:** Developed a custom command-line client/emulator for an MMO game, allowing users to chat and carry out simple tasks (trade, view friends, etc) without the need to open the full game client. (Node.js, blessed)