

# Kevin Zou

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

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## Education

- **University of Michigan, Ann Arbor** Ann Arbor, MI  
*Bachelor of Science in Computer Science; GPA: 3.34; Expected Graduation May 2022* Sep. 2018 – Present
  - **Relevant Coursework:** Discrete Math, Data Structures & Algorithms, Computer Organization, Computer Security, Database Management Systems, Intro Artificial Intelligence, Game Design & Development, Software Engineering, Intro Autonomous Robotics
- **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 Development

## Programming Skills

- **Languages:** C/C++, C#, HTML/CSS, Java, Javascript, Python, Go     **Proficiencies:** Debugging, Profiling, Optimization
- **Technologies:** Angular, Django, Node.js, OpenCV     **Misc:** AWS, CircleCI, TFS, Agile

## Work Experience

- **QuickenLoans** Detroit, MI  
*Software Developer Intern* 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** Alexandria, VA  
*Image Processing Intern* 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

- **Computational Biology Research Mentorship** Fairfax, VA  
*at 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

- **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.
- **TJREVERB Cubesat Project, TJHSST:** Student-run project to send a satellite into orbit. I contributed code for our outreach website and the satellite's radio communications. Greenlit by NASA for a 2019 launch.  
**Utilized:** HTML, Javascript, CSS, and Python.
- **Open-Source Video Game-related Development**  
<https://github.com/nkzou>
  - **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)
  - **Informational Web App:** A spreadsheet based web database for the mobile game Doll's Frontline, providing game stats and info. (HTML/CSS/JS, ag-Grid, i18n, Django)