# Daniel Ko (US Citizen)

EDUCATION

#### University of Wisconsin - Madison

Madison, WI

B.S. in Computer Science 3.9/4.0 Cumulative GPA

Expected Dec 2021

Professional Experience

## Zendesk Software Engineering Intern

Madison, WI

Oct 2020 - Present

• Collaborated closely with local and global team members to build large scale, efficient, and safe CI/CD pipelines that deploy to over dozens of servers globally for 300 million end users.

### TDS Telecom Software Engineering Intern

Madison, WI Sept 2019 – Oct 2020

- Addressed regular production bugs and improvements in enterprise **Java** applications using **JIRA** to prioritize tasks and utilized **CI/CD** pipelines for rapid development and deployment.
- Developed **Python** script that used the **ArcGIS API** to automate uploading service definition files to and from a remote server, increased upload speeds by 80%.
- Developed, refactored, and upgraded legacy **Perl** web applications and scripts on an Operations Support Systems (NetExpert) server, which interacted with internal **RESTful** services and **SQL** servers. Web applications used by more than 1,000 field technicians.

## Juni Learning Computer Science Instructor

Remote Sept 2019 – Jan 2020

- Individually taught 8 students aged 8-16 Scratch, Python, and Java (AP Computer Science).
- Selected to be one of the few trial instructors to represent Juni Learning to prospective students. Successfully taught trial sessions resulting in more than 50% enrollment rate.
- Taught with a pedagogical philosophy based on project-based learning and praxis. Emphasized critical thinking and risk-taking during lessons by presenting myself as a knowledgeable collaborator rather than an source of infallible facts.

# NASA 2019 Student Launch Initiative Chief Hardware Engineer

Madison, WI Sept 2018 – June 2019

- Developed full stack application for our project: *Measurement of Aerosols in Lower Atmosphere Using Optical Detection*.
- Included communication between payload and telemetry module to ground computer using a **XBee** module using serial communication. Ground computer had a **Python** backend which used SciPy and pandas to parse through and analyze telemetry and payload data. **Bootstrap** frontend for interactive dashboard with live 3D model tracking the gyroscope sensor.

#### Yu Lab (University of Wisconsin - Madison) Research Intern

Madison, WI

Feb 2018 - Sept 2018

- Researched various genes in the *Aspergillus* genus and their effects on sporic life cycle.
- Inoculated various fungal cultures with target genes knocked out and performed western blot on those samples.

Skills

**Programming** Java, Python, Perl, C, MATLAB, SQL, Bash, HTML, CSS, Javascript **Tools** Terraform, AWS, Spinnaker, Git, JIRA, Jenkins, \*nix, LATEX **Languages** English, Korean

Miscellaneous Red Cross Adult and Pediatric First Aid/CPR/AED Certification

#### Awards

- Foreign Language and Area Studies (FLAS) Fellowship, U.S. Department of Education
  STEM Engagement Award (2nd), NASA Student Launch Initiative
- STEM Engagement Award (2nd), NASA Student Launch Initiative
  Altitude Award (3rd), NASA Student Launch Initiative
  2019
- Social Media Award (2rd), NASA Student Launch Initiative 2019
- 1st Place, Rocket for Schools Competition (cooperation with Gilroy and Ane Lab) 2018, 2019
- National Finalist, Team America Rocketry Challenge 2018