Daniel Ko (US Citizen)

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ko28 · daniel-ko1

Professional Experience

TDS Telecom — Madison, WI
Software Engineering Intern — *Sept 2019 – Present*

- 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 — Remote
Computer Science Instructor — *Sept 2019 – Jan 2019*

- Individually taught 8 students aged 8-16 **Scratch**, **Python**, and **Java** (AP Computer Science).
- Successfully taught trial sessions resulting in more than 50% enrollment rate.

NASA 2019 Student Launch Initiative — Madison, WI
Chief Hardware Engineer — *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. Ground computer had a **Python** backend which used NumPy 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) — Madison, WI
Research Intern — *Feb 2018 – Sept 2018*

- Researched various genes in the *Aspergillus* genus and their effects on sporic life cycle.

West High School — Madison, WI
AP Calculus & Algebra Teaching Assistant — *Sept 2017 – June 2018*

- Spent 1 year extensively helping students with classwork, homework, and test reviews.

Education

University of Wisconsin - Madison — Madison, WI
B.S. in Computer Science — *Jan 2020 – Dec 2022*
3.95/4.00 Cumulative GPA
Relevant Coursework: Discrete Mathematics, Linear Algebra, Multivariable Calculus, Data Structures, Algorithms

Skills

Programming Java, Python, Perl, C/C++, SQL, Bash, HTML, CSS, Javascript
Tools Vim, Tmux, 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 *2020*
- STEM Engagement Award (2nd), NASA Student Launch Initiative *2019*
- 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*