SHUAIHUA NIU

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EDUCATION

University of California, Irvine | Master of Software Engineering | Irvine, CA   Sep. 2021 - Dec. 2022

Beijing University of Technology | Bachelor of Computer Science | Beijing, China   Sep. 2017 - Jul. 2021

SKILLS

- Programming Languages: Java, Python, C, SQL, Verilog
- Website Development: REACT, HTML, JavaScript, CSS
- Other Skills: Linux, Android, Vim, MIPS Command, PyTorch

WORK EXPERIENCES

SDE Intern | Chinese Academy of Sciences, Beijing, China   Aug. 2020 - Oct. 2020

Built a tool in Python, that allows users to generate a map with different climate areas by inputting daily average temperatures and precipitations, making the climate data more visual.

• Constructed a statistic model that used temperature and precipitation data in China from 2014-2016 to mark different climate zones from 1 to 10 in 222,600 geographical areas.

• Designed a feature with output of a map with greyscale values representing the 10 different climate zones.

Product Manager Intern | BDSecurity, Beijing, China   Mar. 2020 - Apr. 2020

Collaborated with mentor and 5 engineers to collect user information and analyze users' preferences in Python.

• Analyzed user feedback and suggested solutions to engineers to add new or improve existing features.

• Enhanced product's security through conducting requirements analysis.

PROJECTS & CONTESTS

Wordle App | Main Developer   Mar. 2022

• Designed and implemented a dynamic Wordle App using **REACT** and **JavaScript** from ground up.

• Created the frontend UI using **Material-UI**, **Bootstrap, HTML5 & CSS3**.

• Followed UI/UX best practices, wrote modular code improving the readability of the application by almost 20%.

• Learnt about automated **CI/CD** pipelines and deployed the web-app using **Netlify**.

Object Segmentation Based on Multi-Task Learning | Main Developer   Mar. 2021 - June 2021

• Constructed an object segmentation network model for multi-task learning in **Python**.

• Combined Faster R-CNN and FCN together to realize target detection, recognition and segmentation at the same time.

• Improved object segmentation performance through different backbone network by 8%, through loss function fusion methods by 6%, and through skip connection methods by 8%.

National College Student Information Security Contest | Main Developer   Apr. 2020 - Aug. 2020

• Acted as the product manager for a team of 4 and responsible for a data gate-related software design.

• Developed desensitization algorithms and implemented algorithms in software using **Java.**

• Selected to attend national contest and placed in the third tier (top 30) out of 200 teams.

WeChat Mini App | Main Developer   May 2020 - Jun. 2020

• Developed a second-handed book-selling system in **JavaScript.**

• Designed and built cloud databases and connected the frontend UI with the backend data.

• Implemented the app on WeChat Mini App Platform.