

Fan Yehan

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EDUCATION

National University of Singapore

Singapore, Singapore

Master of Computing

[Expected]2022-08 - 2024-01

- Relevant courses: Neural Networks & Deep Learning, Knowledge Discovery and Data Mining

Beijing University of Posts and Telecommunications

Beijing, China

Bachelor of Engineering in Telecommunications Engineering with Management

2018-09 - 2022-06

- Overall grade: 3.71/4.0

- Relevant courses: Computer Vision, Telecommunications Systems, Image and Video Processing

SKILLS

Languages: Python, Java, Javascript, HTML/CSS, SQL

Frameworks: Pytorch, MERN stack, Unity

INTERNSHIP EXPERIENCE

Data Science Team, The Stakeholder Company Pte. Ltd.

Singapore, Singapore

Data Science Intern

[Expected]2023-05 - 2023-09

- Developed a robust event extraction framework by fine-tuning pretrained large language models, specifically tailored for mining-related news for our mining corporation customers.
- Introduced a novel feature of event causal inference to enhance the event extraction system leveraging topic modeling technique, providing stakeholders with insights into the causal relationships of potential events.

AI Lab, Xiaomi Inc.

Beijing, China

Algorithm Engineer Intern

2021-09 - 2022-03

- Conducted extensive industry research in the field of autonomous driving, focusing on various aspects in perception system, such as multi-modal sensor fusion, 3D object detection, and 3D semantic segmentation.
- Upgraded technical solution documents by providing comprehensive and up-to-date information, ensuring documentation of algorithms and methodologies relevant to the department's goals and objectives.

Pervasive HCI Group, Tsinghua University

Beijing, China

Research Assistant

2021-09 - 2022-03

- Conducted user studies to analyze the intricate distribution patterns of gaze points, utilizing gaze data obtained from the Head-Mounted Display's software development kit.
- Proposed a robust and highly precise gaze pointing technique specifically designed for target selection tasks in VR environment, facilitating the accurate prediction of user-intended targets based on Bayes' rule.

PROJECT EXPERIENCE

3D Semantic Segmentation for Point Cloud Scenes

2021-09 - 2022-05

Undergraduate Graduation Project

- Designed an adaptive feature aggregation method with intra-scale and cross-scale modules to refine the point's representation of point cloud scenes.
- Improved neighborhood pooling algorithm with refined nearest-neighbor search strategies to penalize less relevant points for aggregation under 3D semantic segmentation scenarios.

PUBLICATION

[1] Yi, X., Qiu, L., Tang, W., Fan, Y., Li, H., & Shi, Y. (2022, October). DEEP: 3D Gaze Pointing in Virtual Reality Leveraging Eyelid Movement. In Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology.

范业涵

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教育背景

新加坡国立大学

新加坡

计算机硕士

[预计]2022-08 - 2024-01

• 主修课程：计算机系统、数据结构与算法、数据挖掘、神经网络与深度学习、人工智能

北京邮电大学

北京, 中国

电信工程与管理学士

2018-09 - 2022-06

• 平均成绩: 88.87/100

• 主修课程：电信系统、计算机网络、计算机视觉、软件工程、数字图像处理、数据库技术与应用

专业技能

编程语言: Python, Java, Javascript, HTML/CSS, SQL

应用框架: Pytorch, MERN 技术栈, Unity

实习经历

数据科学组, The Stakeholder Company

新加坡

数据科学实习生

[预计]2023-05 - 2023-09

- 基于微调预训练的大型语言模型 DeBERTa 开发了针对矿业新闻的事件提取系统。
- 设计了基于主题模型的事件因果推断功能, 为客户提供了潜在事件的因果关系分析和决策。

人工智能实验室, 小米公司

北京, 中国

算法工程师实习生

2021-09 - 2022-03

- 调研了自动驾驶领域感知算法的应用, 包括多模态传感器融合、三维物体检测和三维语义分割。
- 撰写了技术方案, 确保了与部门目标相关的算法和方法论的文档化。

人机交互与普适计算实验室, 清华大学

北京, 中国

研究助理

2021-09 - 2022-03

- 进行人机交互相关用户研究, 分析用户在注视时的视线落点分布模式。
- 提出了一种专为 VR 环境中的目标选择任务设计的高精度眼动选择技术, 基于贝叶斯规则准确预测用户预期的选择目标。

项目经历

基于深度学习的三维点云语义分割

2021-09 - 2022-05

- 设计了一种具有尺度内和跨尺度模块的自适应特征聚合方法, 以改进点云场景中点的表示。
- 利用最近邻搜索策略改进了邻域池化算法, 优化在三维语义分割场景下对点的聚合。

CS.Share 网站开发

2023-02 - 2023-05

- 基于 MERN 技术栈, 开发一个计算机知识分享平台, 实现知识库、用户编辑、评论等功能。

发表论文

[1] Yi, X., Qiu, L., Tang, W., Fan, Y., Li, H., & Shi, Y. (2022, October). DEEP: 3D Gaze Pointing in Virtual Reality Leveraging Eyelid Movement. In Proceedings of the 35th Annual ACM Symposium on User Interface Software and Technology.

其他

英语能力: 全国大学英语六级考试 (595 分) 雅思 (7.0 分)

奖项: 二等奖学金, 北京邮电大学校级 (2020); 三等奖学金, 北京邮电大学校级 (2019, 2021)

优秀学生干部, 北京邮电大学校级(2019)