# Postdoctoral Fellow and Research Engineer Positions

## **National University of Singapore**

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#### 1. Postdoctoral Fellow - 00CUR

## **Description**

The research project is funded under Artificial Intelligent—Enterprise Digital Platform (AI-EDP) Programme in the areas of Smart City and Smart MRO. The postdoctoral researcher will work in ST Engineering & NUS Joint Lab and collaborate with the Transportation Group in the Department of Civil and Environmental Engineering, the Decision Analysis Group in the Department of Industrial System Engineering and Management, the AI Research group in the Department of Electrical and Computer Engineering at NUS and ST Engineering. The research project aims to develop a methodology framework to generate intelligent traffic diffusion plans and information dissemination strategies by analyzing historical traffic data. It is expected to deliver intelligent tools to access traffic accident impact and to generate traffic diffusion strategies by machine/deep learning, simulation, and optimization techniques. The postdoctoral researcher will lead the research project, supervise research students, and write research proposals and reports. This is a full-time position, and the duration of the first contract is one year. There is an opportunity to extend the position to multiple years, depending on the performance in the first year and the availability of funding.

#### **Qualifications**

- Ph.D. degree obtained or expected to be obtained in a related discipline (transportation engineering, operations research, computer engineering/science, or related disciplines) by December 2020
- strong interests and experience in traffic simulation, statistical modeling, machine/deep learning, and mathematical optimization
- strong written and oral communication skills
- expertise and work experience in traffic simulation software Vissim and programming with at least one language, e.g., Python, R, Java, SQL, Julia, C# or C++

Job: Research

**Primary Location:** National University of Singapore **Organization:** Civil and Environmental Engineering

**Schedule:** Full-time - Fixed Term (Contract)

Below is the link posted on the NUS Career site for the above position - Postdoctoral Fellow - 00CUR

The URL is as shown below:

https://careers.nus.edu.sg/NUS/job/Research-Fellow/3436144/?locale=en GB

#### 2. Research Engineer - 00CUS

### **Description**

The research project is funded under Artificial Intelligent—Enterprise Digital Platform (AI-EDP) Programme in the areas of Smart City and Smart MRO. The postdoctoral researcher will work in ST Engineering & NUS Joint Lab and collaborate with the Transportation Group in the Department of Civil and Environmental Engineering, the Decision Analysis Group in the Department of Industrial System Engineering and Management, the AI Research group in the Department of Electrical and Computer Engineering at NUS and ST Engineering. The research project aims to develop a methodology framework to generate intelligent traffic diffusion plans and information dissemination strategies by analyzing historical traffic data. It is expected to deliver intelligent tools to access traffic accident impact and to generate traffic diffusion strategies by machine/deep learning, simulation, and optimization techniques. The research engineer will work on the research project, supervise research students, and write research proposals and reports. This is a full-time position, and the duration of the first contract is one year. There is an opportunity to extend the position to multiple years, depending on the performance in the first year and the availability of funding.

#### **Qualifications**

- M.Eng/MSC degree obtained or expected to be obtained in a related discipline (transportation engineering, operations research, computer engineering/science, or related disciplines) by December 2020
- strong interests and experience in traffic simulation, statistical modeling, machine/deep learning, and mathematical optimization
- strong written and oral communication skills
- expertise and work experience in traffic simulation software Vissim and programming with at least one language, e.g., Python, R, Java, SQL, Julia, C# or C++

Job: Research

**Primary Location:** National University of Singapore **Organization:** Civil and Environmental Engineering

**Schedule:** Full-time - Fixed Term (Contract)

Below is the link posted on the NUS Career site for the above position - Research Engineer - 00CUSThe URL is as shown below:

https://careers.nus.edu.sg/NUS/job/Research-Engineer/3436244/?locale=en GB

#### 3. Research Fellow - 00DJJ

#### **Description**

A postdoctoral researcher position is available at the Department of Industrial Systems Engineering and Management at the National University of Singapore. The postdoctoral researcher will lead funded research projects, supervise research students, and write research proposals and reports.

The research projects target to develop a new generation of a modelling framework to formulate the complexities of shared mobility and its interactions and interconnectedness with existing transportation networks. It is expected to deliver a comprehensive analysis tool to support the decision-making from various perspectives (i.e., commuters, operators, and public sectors).

This is a full-time position, and the duration of the first contract is one year. There is an opportunity to extend the position to multiple years, depending on the performance in the first year and the availability of funding.

### **Qualifications**

- Ph.D. degree obtained in a related discipline (operations research, transportation engineering, or related disciplines).
- Candidates in the final stages of PhD degree are welcome to apply.
- Strong interests in Mathematical Modelling and Programming.
- Strong written and oral communication skills (English).
- Expertise and work experience in programming with C++ (or Java) and optimization solvers (e.g., CPLEX, AMPL).

Job: Research

**Primary Location:** National University of Singapore **Organization:** Industrial & Systems Engineering **Schedule:** Full-time - Fixed Term (Contract)

Below is the link posted on the NUS Career site for the above position – Research Fellow – 00DJJ

The URL is as shown below:

https://career44.sapsf.com/sfcareer/jobregcareer?jobId=2976&company=nationalunP2

# 4. Research Engineer - 00DJK

### **Description**

A Research Engineer position is available at the Department of Industrial Systems Engineering and Management at the National University of Singapore. The postdoctoral researcher will lead funded research projects, supervise research students, and write research proposals and reports.

The research projects target to develop a new generation of a modelling framework to formulate the complexities of shared mobility and its interactions and interconnectedness with existing transportation networks. It is expected to deliver a comprehensive analysis tool to support the decision-making from various perspectives (i.e., commuters, operators, and public sectors).

This is a full-time position, and the duration of the first contract is one year. There is an opportunity to extend the position to multiple years, depending on the performance in the first year and the availability of funding.

#### **Qualifications**

- Master degree obtained in a related discipline (operations research, transportation engineering, or related disciplines).
- Strong interests in Mathematical Modelling and Programming.
- Strong written and oral communication skills (English).
- Expertise and work experience in programming with C++ (or Java) and optimization solvers (e.g., CPLEX, AMPL).

Job: Research

**Primary Location:** National University of Singapore **Organization:** Industrial & Systems Engineering **Schedule:** Full-time - Fixed Term (Contract)

Below is the link posted on the NUS Career site for the above position - Research Engineer - 00CUSThe URL is as shown below:

https://career44.sapsf.com/sfcareer/jobreqcareer?jobId=3532&company=nationalunP2