



Question today Imagine tomorrow Create for the future



PROFESSIONAL PROFILE

My name is Alexander. I completed a Bachelor of Engineering with First Class Honours, majoring in Civil and Structural Engineering at the University of Adelaide. I had developed a keen interest in transport and traffic engineering had developed during my study. The elective course of traffic engineering in my final year had provided myself with the foundation of knowledge to continue to pursue a career as a transport professional.

Since graduating, I joined WSP Australia Pty Ltd in October 2019 as a first-year Graduate Transport Engineer in South Australia Planning and Mobility Division (previously Transport Advisory and Planning). Exposed to real world projects had provided opportunities for me to develop technical skills and enhance communication skills. I am diligent and passionate about traffic management and design that will not only serve the clients but benefit the society as well.

I am developing an understanding with Australian Standards and Austroads guidelines. I am trained in using: AutoCAD, SIDRA Intersection and ArcGIS/QGIS. I am also equipped with other essential skills such as: report writing, document management, crash data analysis, heavy vehicle route assessment.

Years with Transport Industry

0.5 years

Education and Qualification

Bachelor of Engineering (First Class Honours) Civil and Structural, University of Adelaide (GPA 6.6/7)

White Card - Work Safely in the Construction Industry, TAFESA

PROFESSIONAL ASSOCIATIONS

Institute of Engineers Australia: Graduate Member

Australian Institute of Traffic Planning and Management: Associate first year member

AWARDS

Adelaide Summer Research Scholarship

REFEREES

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PASSION AND FUTURE READY

My passion to become a transport engineer is one that traffic is the key to help our societies thrive sustainably. From my point of view, the development of infrastructure remains priority of a region's economy. The construction of roads that keep SA moving and strategic planning of networks ensure a promising future of local communities. Also, transport planning is to organise more efficient or reliable networks and to guide multi-modal solutions. The idea of shaping cities wakes me up and keeps me enthusiastic every day.

I have been fortunate to work with WSP that see to plan, design and manage innovative solutions with people (clients, end users, communities and shareholders). Involving in the projects that help clients better understand how their communities, customers and end users will live in the future by applying future trends and scenarios really broadens my horizons and inspires me to engage proactively in the industry.

AITPM AND SA BRANCH COMMITTEE

AITPM represents the leadership in traffic and transport industry and provides young professionals and experienced engineers with an extensive network around Australia. I have been a member in the early stages of my career. Thanks to AITPM, I start to establish connections other AITPM members and peers via numerous social/technical events. For example, I really enjoyed talking about how the transport and infrastructure will look like after COVID19 pandemic with Bill Zhang. As the biggest event of the year, the upcoming AITPM Nation Conference will provide me more opportunities for me to network with other fellows, to extend my knowledge and to continue my professional development.

I am currently helping to plan the upcoming AITPM SA YP social event. Involving such an activity allow myself to gain a better understanding the process of preparing an event and how to better serve the participants as an organiser. If I have the chance to sit on the SA branch Committee as a Young Professional representative, I will continue to help organise social events and technical forums, share my knowledge with other YPs and reinforce the connections between AITPM and other YPs in the transport industry. In addition, as a state member I hope to find ways to drive better use of active transport. Together with other members, we imagine the promising future of our cities and design for better outcomes for the industry.

PROFESSIONAL EXPERIENCE

Traffic Engineering

- **Planning Study and Design Development for the Metro Congestion Initiative (Inner Metro), Adelaide, SA, Australia (2019-2020): Department of Planning, Transport and Infrastructure (DPTI), Graduate Transport Engineer (Project value: \$115m).**

Worked collaboratively with the WSP and Jacobs project managers, discipline leads, designers and planners to provide support three metropolitan intersections in the planning study:

- Cross Road and Fullarton Road Upgrade;
- Glen Osmond Road and Fullarton Road Upgrade; and
- Main North Road and Nottage Terrace Upgrade.

Key responsibilities and tasks undertook:

- Prepared, collated and reviewed reports and drawings;
- Prepared safety documents for site visits;
- Conducted site visits during peak traffic periods at major intersections;
- Prepared site visit summaries to assist with SIDRA modelling validation;
- Assisted with development of SIDRA models for major intersections;
- Assisted with document control, business case development and project management;
- Assisted with alternative concepts assessment within an MCA framework;
- Conducted collation and analysis of crash data and traffic data; and
- Assisted with preparation of car park design plans with civil engineer.

- **Princes Highway Heavy Vehicle Route Assessment (HVRA) and Road Safety Audit (RSA), Adelaide, SA, Australia (2020): Department of Planning, Transport and Infrastructure (DPTI), Graduate Transport Engineer.**

Collated and reviewed reports. Undertook early stage desktop study. Conducted collation and analysis of crash data and traffic data. Prepared safety documents for site visits. Assisted with heavy vehicle route assessment and document control.

- **Mt Barker Strategic Road Network Analysis, Adelaide, SA, Australia (2020): Department of Planning, Transport and Infrastructure (DPTI), Graduate Transport Engineer.**

Collated and reviewed reports. Assisted with comparison between current and previous MASTEM assumptions and traffic forecasts. SIDRA modelling for major intersections.

- **Majors Road Management Plan and Planning Study including Interchange with Southern Expressway, Adelaide, SA, Australia (2019): Department of Planning, Transport and Infrastructure (DPTI), Graduate Transport Engineer.**

Undertook a conservative analysis of the merging traffic flow on the Expressway to investigate the performance of merge area for northbound on-ramp and the southbound on-ramp at Majors Road interchange. Assisted with project delivery.

Project Management

- **Technical Study for the Development of the North-South Corridor, Adelaide, SA, Australia (2020): Department of Planning, Transport and Infrastructure (DPTI), Graduate Transport Engineer (Project value: \$800bn).**

Assisted in generating project invoices, updating project weekly timesheet records ensuring that expenses were up-to-date.

Previous experience

Construction

- **Construction of Tallest Skyscraper, Zhenjiang, Jiangsu, China (2016–2017): Zhenjiang Sijian Construction Ltd Company, Assistant project engineer intern.**

Completed a 12-week placement to develop engineering skills. Provided engineering expertise onsite within a construction team. Received training in drafting software – AutoCAD.

Environmental Engineering

- **Weed Mapping – Adelaide Airport Vernal Pools, Adelaide, SA, Australia (2018): Conservation Volunteers Australia, Project volunteer.**

Provided support in weed mapping to manage the Vernal Pools project site, collaborated with the University of Adelaide. Analysed data and developed weed maps for priority weeds at the site.

Teaching Experience

- **Adelaide University, Adelaide, SA, Australia (2018): Teaching assistant.**

Reinforced lessons presented by lecturers by reviewing material with students one-on-one and face-to-face. Aided in terms of assignment questions, small group projects, laboratory tests and teaching materials etc.

- **Adelaide University, Adelaide, SA, Australia (2017): Research assistant.**

Completed a research project over a 6-week period under the supervision of Dr Phillip Visintin. Designed, modelled and analysed masonry structures in Abaqus. Achieved satisfactory models of masonry structures using Abaqus.

- **Adelaide, SA, Australia (2014–Current): Casual private Tutor.**

Gave private tuition in mathematics and physics for high school students by effectively explaining key concepts, methodology and concepts.