

# Ashwin Rajesh SOFTWARE ENGINEER INTERN

Enthusiastic and motivated undergraduate software engineering student seeking internship opportunity. Proficient in Object-oriented programming languages. Contributed to open source projects such as polybar, a widely popular linux status bar and recipient of the award for 'most outstanding student in Software Design & Development' in highschool. Offers great analytical & problem-solving skills, Strong team-working abilities and willingness to learn new technologies and gain industry experience.

# **KEY SKILLS & COMPETENCIES**

- **Problem-Solving:** Suggested a critical design change to the team robot in the First Robotics competition, which helped the team advance further in the competition.
- **Teamwork & Collaboration:** Demonstrated the ability to efficiently work with a team in my first semester of engineering where we were tasked with solving a rural transport problem. Our engineering report was recognised with a high distinction grade.
- Algorithmic Thinking: Collaborated to create typing performance algorithms to assess a user's typing skill by
  considering accuracy, speed and prompt difficulty. The discord bot application is currently being used in a public
  server.
- **Analytical Skills:** Worked with a team in my third semester to analyse various Information system solutions for a scenario using Design-thinking concepts. Our solution was recognised with a distinction mark.
- Team Leadership: Lead and mentored groups in coding workshops and during the iSupporter volunteer program.

# **EDUCATION**

Feb 2021 - Dec 2025 (expected)	Bachelor of Engineering (Honours) University of Technology Sydney (UTS)	<ul><li>Majoring in Software Engineering</li><li>Semesters 1 to 4: Distinction average (75%)</li></ul>
Jan 2019 - Nov 2020	NSW Higher School Certificate Parramatta High School	<ul> <li>ATAR 87.5</li> <li>Certificate of achievement for 'Most outstanding student year 11 in Software Design &amp; Development'.</li> <li>Principal's award for highest band in 'Mathematics Advanced'.</li> <li>Certificate of Credit in Computational &amp; Algorithmic Thinking Exam</li> <li>Certificate of achievements for first position in: O Software Design &amp; Development</li> <li>Engineering Studies</li> <li>Information Processes &amp; Technology</li> </ul>

# TECHNICAL SKILLS

<b>Programming Languages:</b>	Javascript, Python, Java, PHP, Bash, SQL, HTML, C, C++	
Tools & Technologies:	ReactJS, AngularJS, NodeJS, Express, MongoDB, WebSockets, GIT version control,	
	Netbeans, Eclipse, VS Code, Android Studio, Vim,	
	MS Office (Word, excel, Powerpoint, Access), Lucid Chart	
Operating Systems:	Linux (Ubuntu, Arch linux, Debian), Windows (XP, Vista, 7, 10)	

Page | 1 Résumé of Ashwin Rajesh

# **PROJECTS**

# Aug – Sep 2022 Typing Test Discord bot

### Responsibilities:

- Create a discord bot to allow users to test their typing speed within the discord application.
- Provide functionality such as leaderboards, charts, adding/deleting entries and averages.
- Develop a ranking system to allow users to compete against each other.

#### Achievements:

- Used MongoDB aggregation functions to query datasets and return valuable statistics.
- Using Java, created a type performance rating algorithm that measures the skill of a user by considering their words per minute, accuracy, and difficulty of the typing prompt
- Deployed the bot using a heroku dyno.
- The discord bot is currently used by multiple users in a large public server.
- Gained experience with using git to merge divergent branches and create pull requests.

## Jun 2022 React Movie Ticket App

#### Responsibilities:

- Create a full stack application that runs on multiple platforms (Android, iOS, web).
- Users should be allowed to select a cinema date and time from a selection of movies

#### Achievements:

- Used Express and MongoDB to develop a REST API that can be used by client applications to submit ticket bookings.
- Utilised React Native ListView components to allow for a responsive user experience.
- Developed functional full stack app within 4 days.

# Aug 2022 Polybar Contribution

#### Responsibilities:

Understand the C++ source code and make contributions to solve existing issues or requested features.

#### Achievements:

- Fixed a bug that caused the entire status bar to crash when a user provided a certain configuration.
- Contributed a spacing customisation feature to Polybar (popular status bar for linux), to enable the user to customise token widths in the status bar.
- The pull requests were approved and are set to be packaged in a future release.

## May 2020 Machine Learning Dots

#### Responsibilities:

Program a set of dots that learn to navigate through obstacles to reach a destination

#### Achievements:

- Used pygame for python and an object-oriented philosophy to develop custom classes for obstacles, dots, scoring systems and populations.
- Programmed a scoring system to judge the dot's movement algorithms based on distance from the destination.
- Over the course of many iterations, dots begin to find their way around obstacles quickly

#### Dec 2018 - May 2020 First Robotics Competition Team, Paramatta High School (Team Delta Phoenix)

#### Responsibilities:

- Ensure that the team robot is functional and follows competition guidelines.
- Program functions that give drivers a competitive advantage in controlling the robot.

#### Achievements:

- Analysed the robot's mechanical design and programmed suitable functions in C++ prior to the competition date.
- Suggested a mechanical design change during the competition to enhance robot capabilities.
- As a result, the team was able to advance past the first stage of the competition.

Page | **2** 

# May 2022 – Jun 2022 iSupporter Volunteer, University of Technology Sydney

Responsibilities:

- Supporting mentor to offshore students
- Provide academic support to international students and teach them about Australian learning culture.

#### Achievements:

- Communicated and provided academic support to international students by utilizing video conferencing software such as MS teams.
- Offered valuable information about living in Australian suburbs which the offshore student was appreciative of.
- Gained knowledge of cultural differences and overcoming language barriers by communicating with international students.

# PERSONAL DETAILS

Nationality: Australian citizen.

Languages: Fluent English, Hindi, Telugu

Health: Excellent, physically fit, non-smoker
Licences: Current NSW Driver's Learner's Licence

Interests & Hobbies: Solving Rubik's cube (10 second solve), osu! Rhythm video-game (2 consecutive years

national tournament winner), rock climbing, weight lifting, origami

# REFEREES

Please note: Refree's contact details will be provided upon request