Septian Razi

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Professional, collaborative and experienced Software Engineer with proficiency in Extended Reality and Front-End Development. Passionate about data visualisation in novel mediums, especially from a Human-Computer Interaction perspective Aspiring to pursue further education to become an expert at Extended Reality development and Immersive Analytics. Using my experience in programming, project management, research, and design I am confident that can make an impact.

Education

Australian National University   *Bachelor of Information Technology (Honours, First Class)*
FEB 2017 - DEC 2020

Wellington College, New Zealand   *Secondary School, NCEA Excellence Endorsement*
JAN 2013 - DEC 2015

Experience

Software Engineer   – *Software Innovation Institute, Australian National University (JUN 2021–Ongoing)*
- Spearheaded the user interface design for multiple website and software projects for clients within the Australian National University, creating mock-ups using industry standard tools
- Developed projects following proper software engineering practices collaborating with a diverse remote team of up to 7 to ensure effectiveness including stand-ups and task boards
- Often upskill to ensure compatibility with new project requirements from back-end development to new frameworks
- *HTML/CSS, JavaScript, Bootstrap, Flutter, Python, Firebase, Azure*

The Lab Mentor   – *The Lab, Marymead, Narrabundah (JAN 2021 - Ongoing)*
- Teach and mentor a classroom of ten children with special needs and on the autism spectrum on a weekly basis general coding and games.
- Develop study plans surrounding video game development and programming, ensuring the difficulty level is sufficient to be challenging and upskilling the mentees.
- *C#, Unity, JavaScript, p5.js, VSCode*

Software Engineer   – *Commonwealth Scientific and Industrial Research Org (CSIRO) (JUN 2022)*
- Contributed to high profile Virtual Reality safety training project, implementing numerous features and user interface elements for a
- Assisted in developing and running user studies for an Extended Reality agricultural data visualisation prototype involving novel interaction techniques.
- Regular correspondence with clients, potential users, 3D artists and other stakeholders to ensure requirements and software is fit for purpose
- *C#, Unity, Microsoft Mixed Reality Toolkit, Git, Confluence*

Software Engineer – *Australian Plant Phenomics Facility, Australian National University (JUN – DEC 2021)*
- Developed an Augmented Reality prototype for Point Cloud Data visualisations of plants and forests
- Created a bespoke data pipeline integrated with a Python Desktop Interface to a HoloLens application via a Firebase Cloud API
- Incorporated novel interaction and data visualisation techniques to improve existing data exploration tasks
- *C#, Unity, Microsoft Mixed Reality Toolkit, Firebase, Git, HoloLens, Python*

Honours / Research Assistant – *Australian National University (JAN 2020 – DEC 2021)*
- Developed a novel Virtual Reality system to facilitate data exploration tasks for graph data
- Researched and performed user studies with up to 20 participants to identify optimal 3D graph layouts of plant pedigree data visualisations as part of my Honours project
- Furthered honours research by developing a data pipeline system connecting a Python and Mathematica Desktop interface to a Virtual Reality application via a Cloud API to transfer and visualise different graph layouts
- Published both projects as Posters for the IEEE VR Conference
- *C#, Unity, Microsoft Mixed Reality Toolkit, Firebase, Git, HoloLens, Python, Mathematica*

Vacation Scholar Internship – *CSIRO, Black Mountain (Summer 2019, Summer 2020)*
- Worked on multiple projects pertaining to data visualisation for agricultural purposes on cutting edge hardware technologies including HoloLens 2 and Oculus Quest
- Developed optimised and insightful visualisations including pedigree data containing over 45,000 data entries into interactive graphs in 3D space and live agricultural API data
- Researched and developed novel interaction techniques including development of a bespoke Hand Gesture Detection module
- *C#, Unity, Microsoft Mixed Reality Toolkit, Git, Confluence*

Front-End Developer – *Techlauncher, Australian National University (JAN – JUN 2019)*
- Developed an API Test Client for Xero Canberra using Agile Methodologies.
- Spearheaded the Iterative Design Process by creating mock-ups, performing User Evaluation Testing and documentation.
- Assisted the Front-End developers in translating design into a workable product using React.
- *JavaScript, React, Node.JS, Git*

Project Manager – *Techlauncher, Australian National University (JUL – DEC 2019)*
- Working with clients from Accenture, lead and managed the development of a UI Prototype optimised for fatigued and high-risk workers
- Involved managing team in delivering research, UI prototypes and testing alongside communicating with stakeholders.
- *JavaScript, React, Git, Confluence,*

University Casual Academic – *Australian National University (JAN 2019 – DEC 2021)*
- Tutored assembly programming and computer architecture (for COMP2300), Web Development and Design (for COMP1710) and Graphics (COMP1720).
- Taught and communicated to up to 60 students of different abilities and backgrounds.
- Collaborated closely with lecturer and other tutors in planning of course and marking.
- *ARM Assembly, HTML/CSS, JavaScript, p5.js, VSCode*

Hackathon Participant *– Govhack (JUN 2019)*
- Utilised publicly provided data and created an innovative product that allowed people to determine job prospects and growth
- Developed a backend to process data using Flask and front-end using HTML, CSS and JavaScript.
- Shortlisted for both the Western Australia Awards and the International Awards.
- *HTML/CSS, JavaScript, p5.js, Git, Python, Flask*

Professional Involvements

President *– ANU Indonesian Students Association (JAN – DEC 2018)*
- Lead a team of 15 committee members in creating events and projects throughout the year.
- Held and planned our large annual event "Indonesian Folk Market" involving intense planning, effectively delegation of around 50 volunteers and collaborating with the Indonesian Embassy and other societies, which resulted in over 300 participants.

Senior Resident *– Fenner Hall, Australian National University (JAN 2019 – DEC 2020)*
- Responsible for the wellbeing and running of a floor of 42 residents.
- Often managing conflict between residents involving the rules and regulations of the Hall.
- Involved in the International Portfolio, in which events and projects are held to help better assimilate International Students in a Hall.

Student Ambassador *– Study Canberra (JAN 2018 –DEC 2018)*
- Involved in numerous events throughout the year to better promote Canberra as a study destination.
- Provided high quality customer service, including responding to questions professionally and in line with the organisation's goals.

Student Ambassador *– ANU College of Engineering and Computer Science (JUN 2018 – DEC 2020)*
- Involved in outreach and promotion of ANU programs, especially in Engineering and Computer Science.
- Regularly receive positive feedback from outreach students in regards to relatability and knowledge regarding opportunities at ANU.
  https://cecs.anu.edu.au/study/meet-our-students/septian-razi

General Representative *– ANU Computer Science Student Association (JAN 2017 – DEC 2018)*
- Developed content that helped CSSA reach members via social media and email, allowing membership to expand from 100 to 200 members the following year.
- Developed posters for ANU CSSA's feature event for two years; Epic Games Night which involved more than 200 participants regularly.

Events Officer *– ANU International Students Association (JAN – DEC 2017)*
- Working under the Event's Vice President, tasked with assisting and running of events.
- Heavily involved working in a diverse team and interacting with individuals from different backgrounds.

Awards and Projects

Best Solutions to Limited Resource Challenge   *– ANU Innovation Challenge (2018)*
Beasiswa Unggulan (University Scholarship)   *– Indonesian Ministry of Education (2016)*

University Projects*:*   gitlab.cecs.anu.edu.au/users/u6086829/
Personal Projects*:*   github.com/septianrazi

Publications

S. Razi, H. Gardner, A. Sorensen and M. Adcock, "A Live-Coded Add-On System for Video Conferencing in Virtual Reality," *2022 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, Christchurch, New Zealand, 2022, pp. 692-693, doi: 10.1109/VRW55335.2022.00197.

S. Razi, H. Gardner and M. Adcock, "Immersive Pedigree Graph Visualisations," *2021 IEEE Conference on Virtual Reality and 3D User Interfaces Abstracts and Workshops (VRW)*, Lisbon, Portugal, 2021, pp. 659-660, doi: 10.1109/VRW52623.2021.00212.