

# Benjamin Lee

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## RESEARCH INTERESTS

I am a 2<sup>nd</sup> year PhD student in immersive analytics at Monash University, Australia. I am particularly interested in exploring how virtual and augmented reality can facilitate data analysis and understanding in ways not otherwise possible with conventional desktop techniques, such as novel collaboration styles and data visualisations. I am currently exploring how data visualisations can intuitively be transformed between conventional 2D and novel 3D representations in augmented reality to enhance data exploration.

## EDUCATION

### **PhD in Immersive Analytics**

Feb 2019 - Present

*Monash University, Melbourne, Australia*

- Advisors: Prof. Tim Dwyer, A/Prof. Bernhard Jenny, Dr. Maxime Cordeil, Dr. Arnaud Prouzeau

### **Bachelor of Informatics and Computation Advanced (First Class Honours)**

2015 - 2018

*Monash University, Melbourne, Australia*

- Advisors: Prof. Tim Dwyer, A/Prof. Bernhard Jenny, Dr. Maxime Cordeil

- Thesis Title: Heterogeneous Mixed-Reality Display Environments for Immersive Visual Analytics

## RESEARCH EXPERIENCE

### **PhD Student**

Feb 2019 - Present

*Monash University, Melbourne, Australia*

Data Visualisation and Immersive Analytics Lab

- Advisors: Prof. Tim Dwyer, A/Prof. Bernhard Jenny, Dr. Maxime Cordeil, Dr. Arnaud Prouzeau

### **Research Intern**

June - Sept 2019

*Microsoft Research, Redmond, Washington, USA*

Visualisation and Interactive Data Analysis Group

- Exploring novel approaches to promote understanding of physical measures and data using virtual and augmented reality

- Building numerous prototype virtual reality experiences which convey said data by leveraging visceral experiences and absolute scales

### **Honours Student**

Feb - Nov 2018

*Monash University, Melbourne, Australia*

Data Visualisation and Immersive Analytics Lab

- Advisors: Prof. Tim Dwyer, A/Prof. Bernhard Jenny, Dr. Maxime Cordeil

- Thesis Title: Heterogeneous Mixed-Reality Display Environments for Immersive Visual Analytics

### **Research Assistant**

May - Oct 2017

*Monash University, Melbourne, Australia*

SensiLab

- Building user study framework within Unity to evaluate the use of virtual reality for patients with OCD

### **Summer Research Student**

Dec 2016 – Feb 2017

*Monash University, Melbourne, Australia*

Monash Adaptive Visualisation Group (MArVL)

- Advisors: Prof. Tim Dwyer, Dr. Maxime Cordeil

- Investigating cross device interaction between large displays and augmented reality

## TEACHING

### **FIT3146 – Makerlab**

Semester 2 2020

### **FIT5147 – Data Visualisation and Exploration**

Semester 1 2020

*Monash University, Melbourne, Australia*

## SERVICE

- Reviewer: CHI 2020, VIS 2020
- Student Volunteer: OzCHI 2020

## AWARDS

- IEEE VIS 2020 Honourable Mention Award (InfoVis)
- Monash Information Technology Industry-Based Learning Placement Scholarship
- Monash Summer Research Scholarship
- Monash Information Technology Excellence Scholarship

## TECHNICAL SKILLS

Proficient in: C# .NET, Unity, R, Python, JavaScript

Familiar with: Git, HLSL, OpenGL, HTML/CSS, SQL, Java, Arduino, C, Processing

## CONFERENCE PAPERS

Benjamin Lee, David Brown, Bongshin Lee, Christophe Hurter, Steven Drucker, and Tim Dwyer. Data Visceralization: Enabling Deeper Understanding of Data Using Virtual Reality. In IEEE Transactions on Visualization and Computer Graphics, 2020. [**Honourable Mention Award**]

Benjamin Lee, Xiaoyun Hu, Maxime Cordeil, Arnaud Prouzeau, Bernhard Jenny, and Tim Dwyer. Shared Surfaces and Spaces: Collaborative Data Visualisation in a Co-located Immersive Environment. In IEEE Transactions on Visualization and Computer Graphics, 2020.

## EXTENDED ABSTRACTS

Benjamin Lee, Maxime Cordeil, Arnaud Prouzeau, and Tim Dwyer. FIESTA: A Free Roaming Collaborative Immersive Analytics System. In Proceedings of the 2019 ACM International Conference on Interactive Surfaces and Spaces (ISS '19). Association for Computing Machinery, New York, NY, USA, 335–338, 2019.