





# Shay Kalyan

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## Education

**Bachelor of Engineering (Honours), Software Engineering**  
The University of Auckland  
First Class Honours with A+ Average.

2012 – 2015

## Awards and Certificates

### Dean's Honours List

University of Auckland  
Awarded to the top 5% of Software Engineering students in the academic year.

2012, 2013, 2014

### First in Course Awards

University of Auckland

- SOFTENG 370: Operating Systems.
- SOFTENG 325: Software Architecture.
- SOFTENG 306: Software Engineering Design 2.
- COMPSI 314: Modern Data Communications.
- SOFTENG 206: Software Engineering Design 1.
- ENGGEN 131: Introduction to Engineering Computation and Software Development.

## Notable Projects

### Fistbump.reviews — a code review tool for GitHub

- Developed a web-based tool that provides the ability to perform effective code reviews on pull requests hosted in GitHub. Features include managing comments, iterations, and tracking approvals.
- Leveraged front-end technologies including **AngularJS** and **TypeScript**, with **Firebase** as the primary backend storage.
- *Fistbump* won the 2015 Final Year Research Project Prize in the Software Applications category at the University of Auckland.

### Slack bot for custom Kaomoji responses

- Implemented a simple **NodeJS**-backed service hosted on **Heroku** that Slack users can invoke via a web-hook slash command with the alias of a given Kaomoji. The service responds to the channel, impersonating the user, with the referenced set of characters, e.g., "flip" becomes (ノ◦◦)ノ∧└─┘).

### Robotic Healthcare Simulation

- **Led an 8-person team** to develop a software simulation using **C++** and **Python** to showcase swarm robotics in the healthcare context.

### Pebble Watchface

- Created a minimalist watchface, *Trace*, in **C** for the Pebble smartwatch.
- Used **JavaScript** for web configuration, and deployed via the Appstore resulting in over 1,700 users.

## Employment

### Microsoft, Redmond

Feb 2016 – Present

Software Engineer II

- Evolved the test orchestration backend for the Windows OS by integrating dynamic virtual machine allocation using **C#** and a suite of managed microservices resulting in reduced static lab costs, improved performance, and increased reliability of end-to-end test passes.
- Developed **Azure**-driven, cloud-scalable services leveraging **Service Bus**, **Service Fabric**, and **Cosmos DB** technologies.
- Established continuous integration and deployment practices through **Azure DevOps**, championing its adoption across the team.

### Microsoft, Redmond

Dec 2014 – Feb 2015

Intern Software Engineer

- Implemented a proof-of-concept dynamic virtual machine allocation in the internal Windows test orchestration system using **C#**, **XML**, **Visual Studio**, and **Perforce** version control.
- Coordinated with internal teams to elicit requirements and validate the feature specification.

### Sapphire Solutions Limited

Dec 2013 – Feb 2014

Intern Software Engineer

- Redesigned, constructed, and deployed the company's website using responsive **HTML5/CSS3** design.
- Increased web presence in competitive online search by applying **Search Engine Optimisation** (SEO).
- Created software tools using **Windows Forms** and **C#** for internal and external use to assist the operations of the business.
- Prepared client computers for off-site installation.

## Volunteer Work

### Software Engineering Students Association

2015

Part IV Representative

- Assisted in organising and promoting events hosted by the student led association.
- Provided a friendly and informative communication channel for students to elevate any concerns and provide feedback relating to courses or the university in general.

### Peer Support Programme

2011

Student Mentor

- Participated in one-on-one interaction with first year college students to provide mentorship.
- Helped peers adjust to college life by listening to and resolving any academic or social issues they were experiencing.

## Skills

### Languages

Intermediate

- C# / .NET

Basic

- Python, HTML5, CSS3, Sass, JavaScript.

### Concepts

- Object Oriented Design, Software Version Control (Git), Microservices

## Academic Transcript

Available on request.