

# Joe Barrett

📍 15/6 Falcon Gardens – Edinburgh – EH10 4AP

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## Education

**Edinburgh Napier University**  
2013–Present

**BEng(Hons) Software Engineering**  
Predicted 1st

**University of the Highlands and Islands**  
2012–2013

**HNC Computing**  
Pass

## Major Projects

### Dissertation - Calculation of Mountain Bike Suspension Setup through Mobile Image Analysis:

- In Progress
- Use of image analysis and user supplied information to calculate optimal suspension settings
- Building mobile application for Android platform
- Using Open CV library image processing library
- Languages: Java, C++

### Helmet Crash Sensor:

- Created helmet mounted device and accompanying Android application
- Detection of certain criteria signals a crash and sends SMS to emergency contact
- Use of 3D trigonometry to calculate orientation using accelerometer and gyroscope data

### Mountain Bike Suspension Data Logger:

## Employment

### Cadence Design Systems

Intern

May 2016–September 2016, Livingston

- Maintaining and adjusting performance tests for Virtuoso software
- Wrote performance testing suite in Python, including automated emailing, data analysis utilities, and automatic debugging
- Notified engineers on failing tests and assisted in debugging
- Created performance tests to compare product platforms using Cadence's SKILL language
- Presented during internal conference for interns and summary of work at end of internship

### Edinburgh Napier University

Student Demonstrator

January 2016–May 2016

- 2nd year Mobile Applications Development
- Assisting lecturer during practical sessions
- Answering questions from students related to mobile programming
- Presented during lecture on previous year's coursework

### C&G Cycles

Assistant Manager and Mechanic

January 2014–January 2015, Edinburgh

### Twelve50 Bikes

Workshop Manager and Sales Assistant

April 2011–June 2012 & May 2015–August 2015, Frodsham

### Cheshire Oaks Cycles

2nd Mechanic and Sales Assistant

March 2010–April 2011, Ellesmere Port

### Graham Weigh Cycles

2nd Mechanic and Sales Assistant

October 2007–June 2009, Queensferry

## Skilled Training

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**Cycle Scotland**

*April 2016*

**Cycle Assistant Qualification**

**Coed y Llandegla Courses**

*February 2011*

**CTC Trail Leader Qualification**

**Whistler Blackcomb**

*August 2009*

**Instructor Development Programme Level 1&2**

**Institute of Leadership and Management**

*August 2009*

**Level 3 Award**

**Cycle Wales**

*October 2007*

**City and Guilds: Cycle Maintenance**

## Interests and Achievements

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