Parker Talbot

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PERSONAL PROFILE

I am a recent graduate with a broad range of interests in computing. I am always looking to learn new skills and am excited to start a career in software engineering.

LINKS

Github - talbotp
LinkedIn - parker-talbot
Personal-Site - parkertalbot.com

SKILLS

PROGRAMMING

Familiar Skills:
Java • Java Swing • JUnit • SQL • Latex • Knime • HTML • Object-Oriented programming • ImageJ
Basic Skills:
C • C++ • CSS • UML • Python • Matlab • Jekyll
Learning:
In my free time I am working through some books on the C programming language, and am keen to further my knowledge in both C/C++, and maybe some lower level programming.

MODULES

GRADUATE

Software Workshop (Java)
Data Structures
Databases
Software Engineering
Operating Systems
Networks
Cryptography
Artificial Intelligence
Intelligent Data Analysis

UNDERGRADUATE (KEY)

Integer Programming
Numerical Methods (C++)
Combinatorial Optimisation
Number Theory
Algebra & Combinatorics
Linear Algebra
Linear Programming
Statistics
Multivariable & Vector Analysis

EDUCATION

UNIVERSITY OF BIRMINGHAM

MSc Computer Science
September 2017 - September 2018
Obtained: Distinction - 83% average in taught modules
Dissertation: "A software plugin for Mass Spectrometry Data Analytics."

UNIVERSITY OF BIRMINGHAM

BSc Mathematics
September 2014 - July 2017
Obtained: Upper Second
Dissertation: "Random Walk Approximations of Brownian Motion and Financial Markets."

GODALMING COLLEGE

Mathematics - A*, Further Mathematics - A, Geography - B

PROJECT EXPERIENCE

MASS SPECTROMETRY IMAGING

Developed a software plugin in the workflow management and data analytics tool Knime for Mass Spectrometry (Biological) data - built in Java.
•Featured multithreaded preprocessing nodes for baseline subtraction, smoothing, rebinning and normalizing.
•Visualization nodes could be used to generate images of single signals, and generate images of the entire data using imglib2 library.
•Required a unique approach to testing and documentation, treating nodes as independent subsystems.

NORMALIZED CUTS IMAGE SEGMENTATION

Implemented the sophisticated graph based spatial clustering algorithm Normalized Cuts in Java.
•Also included an implementation of Lanczos algorithm to speed up calculation of extreme eigenvalues of massive matrices.

DESKTOP COMPUTER SCIENCE QUIZ

Final year group project, we developed a competitive quiz application played over the network.
•I was responsible for developing a multithreaded client, and collaborated to connect it with our server using the publish-subscribe pattern, and the Swing GUI.

EXPLORATION OF PCA

Performed some Principal Component Analysis experiments on Ethereum dataset with 14 attributes, using Matlab.
•Found extremely high amounts of variance are kept with only two principal components.
•Singled out three attributes that have the most effect on the first and second principal components.

WORK EXPERIENCE

SQUIRES GARDEN CENTRES | Catering Assisstant

July 2015 – September 2016 | Surrey, UK