

# Ahmad Atallah

## Résumé

### EDUCATION

- 2012–2017** **Systems and Biomedical Engineering Department.** School of Engineering, **Cairo University**  
Cairo, Egypt
- **Bs.c. of Systems and Biomedical Engineering**, GPA 3.2.
  - **THESIS TITLE** – GPU-Based Visualization Application for Two Projection 2D-3D Image Registration In Radiation Oncology

### PROJECTS

- 2020** **Tachyons Styled TSX**
- Bring Tachyons, implemented with Emotion and Styled System, into React app with types in mind.
  - **Development** —TypeScript, React, Emotion, Styled System, Tachyons, webpack.
- 2019–2020** **Swvl Business Dashboards and Design System Packages**
- I participated in initiating the company's business dashboards, developing and publishing design system components packages on npm, with a continues development and delivering large set of transportation features.
  - **Development** —TypeScript, React, Redux, Theme-UI, webpack, Rollup.
- 2017** **GPU-Based Visualization Application for Two Projection 2D-3D Image Registration In Radiation Oncology –Graduation Project**
- Visualization cross platform for fast 2-projection 2D-3D registration that assists in patient positioning process during radiation oncology treatment procedures. The software development included rendering multiple digitally reconstructed radio-graphs(DRRs) projection images from 3D CT volume, similarity measures, optimization, and a user interface to visualize the differences.
  - **Development** —C/C++, VTK, ITK, Qt, Qthread, OpenMP, OpenCL.
  - **ADVISOR** —**Tamer Basha.**
- December 2016** **TCP/IP-Based Bullet Shooting Multi-Player Game –School Project(Game - Networking).**  
A simple multiplayer game (client-server) developed in Python and Tkinter module for building the graphical user interface.

### SKILLS

- Programming** Typescript, JavaScript, ReasonML, Scala, Ruby, Pascal, C/C++, OOP, Functional Programming.
- Web Development** React, Angular, Redux, Jest, Tachyons, Styled Components, Emotion, Theme-UI, Material-UI, MDX, Storybook, Gatsby, and others.
- Visualization Tools** ThreeJS, D3, WebGL (Intermediate).
- Build Tools** webpack, Rollup, Gulp, sbt, CMake, Maven.
- Database** SQLite, PostgreSQL, Mongo.
- Version Control** Git, SVN.
- Others** Vim, Docker, Jenkins, Shell Scripting,  $\LaTeX$ .

## EXPERIENCE

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|-------------------|---|
| Dec 2019–Aug 2020 | <b>Software Engineer (Frontend)—Part-time at Qobra</b><br>I started the core product desktop app with electron. Worked on project's boilerplate, handling app multiple tabs, business models, and others.   |
| Dec 2018–Present  | <b>Software Engineer (Frontend) at Swvl</b><br>I am working on developing company's dashboards which includes a lot of front-end stuff besides some visualizations on maps. I had the chance to start multiple projects there from scratch besides my contributions in the existing projects.   |
| Feb 2018–Dec 2018 | <b>Software Engineer (Visualization) at Millensys Healthcare Solutions</b><br>I joined the medical imaging team to deliver and contribute in healthcare software solutions. My work included and not limited to using OpenJPEG, LEAD-TOOLS, Windows API, OpenGL, migrating from OpenGL to WebGL, drawing on canvas, advanced image processing techniques, 2D and 3D visualization ( DICOM viewing, processing, and MPR). Through my working period I was assigned to advanced DICOM viewer project( web based, and Desktop), reporting tool and others. |
| Oct 2017–Jan 2018 | <b>Bioinformatics Intern at Pine Biotech</b><br>Working on both educational and analysis platform provided me with great experience in understanding Next Generation Sequencing and its algorithms in Bioinformatics era.   |

## COURSEWORK

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|--------------------------------|---|
| Feb 2019 –Apr 2019             | <b>Functional Programming in Scala Specialization –Coursera</b><br>• Functional Programming Principles in Scala.  |
| Feb 2018 –Aug 2018<br>Apr 2018 | <b>Front-End Nanodegree –Udacity</b><br><br><b>Deep Learning Specialization –Coursera</b><br>• Neural Networks and Deep Learning.<br>• Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization |

## AWARDS & ACTIVITIES

I like watching, and attending software conferences, and workshops from all over the world.

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|------------------------|--|
| October 2016           | <b>RDI Egypt Competition –Project Award .</b><br>My project, an automatic system for MCQ exams correction, was awarded the 3rd place in 2016 from RDI Egypt.   |
| 24th–27th October 2015 | <b>EMB 2nd Biomedical Engineering Workshop.</b><br>Participated in the 4 themes of the workshop including:<br>• High Performance Computing.<br>• Medical Visualization.<br>• Software Engineering & Bioinformatics.<br>• Embedded Systems. |
| August 2014            | <b>IEEE EMBS International Student Conference –Project Award .</b><br>My Project, Derma, was awarded the 1st place from the IEEE EMBS 2014.  |