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GitHub: <https://github.com/AlCharl88> | Portfolio: <https://alcharl88.github.io/react-portfolio2/>;
<https://alcharl88.github.io/Portfolio/>

SUMMARY

- Full Stack Web Developer, with hands-on experience on applications conception, design, development and deployment.
- Experienced Senior Scientist with profound knowledge in project conception and development. Expertise in managing projects related to the manufacture of quality pure certified references materials (CRMs).
- Organic and organometallic synthesis, ligand design, synthetic methodology and isolation of materials of high purity, catalyst screening, full structural characterization of new materials.
- Handling air sensitive compounds: Glove box, vacuum Schlenk line in inert atmosphere
- Synthetic route innovation, optimization of the reaction conditions, catalytic organic transformation and mechanism investigations

STRENGTH AND TECHNICAL SKILLS

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|---------------------------------------|---------------------------------|---|
| • Project Development | • Laboratory Safety | • JavaScript, Express, React, Handlebars, |
| • Laboratory Management | • Synthetic Protocol Innovation | • HTML5, CSS3, Bootstrap, JQuery |
| • Organometallic Catalyst Development | • Theoretical Calculation (DFT) | • Express, Node.JS, React, GraphQL, NoSQL |
| • Asymmetric Synthesis | • Organic Synthesis | • MySQL, MongoDB, Apollo-server |

PROJECTS

Sports Bets | <https://github.com/greggd1991/SportsBets> | <https://greggd1991.github.io/SportsBets/>

- Sports Bets app is intended to be used for individuals interested in gambling
- **Core responsibilities:** Contribution in writing the code for the html, the styling and the functionalities
- Languages used: HTML, CSS, Javascript

Weather Dashboard | https://github.com/AlCharl88/Weather_Dashboard | https://alcharl88.github.io/Weather_Dashboard/

- The application consists of using a weather dashboard in order to consult weather forecasts in any city in the world.
- **Core responsibilities:** Design, building and deploying the App
- Languages used: HTML, CSS, Javascript

BudgetTracker | <https://github.com/AlCharl88/BudgetTracker> | <https://warm-lake-26156.herokuapp.com/>

- The BudgetTracker gives users a fast and easy way to track their money by allowing them to access the information anytime even without any internet connection.
- **Core responsibilities:** Design, building and deploying the App
- Languages used: Nodejs, npm, Javascript, MongoDB Atlas, Expressjs, Mongoose, Morgan, indexedDB, Bootstrap

Amazing Planner | <https://github.com/dmcaulay97/day-planner> | <https://shrouded-fortress-22363.herokuapp.com/>

- The amazing planner is a react App that gives users a way to monitor their daily event
- **Core responsibilities:** contribution to the the design, building and deployment of the App
- Languages used: Nodejs, npm, Javascript, MongoDB Atlas, Expressjs, Mongoose, React, GraphQL, Apollo-server

PROFESSIONAL EXPERIENCE

07/2019 – Now Senior Synthesis Chemist, AccuStandard Inc., New Haven, Connecticut, USA

Key Accomplishments:

- Independent management of multiple projects related to the synthesis of quality pure PCBs, PBDEs, Dioxins, PAHs, PFAs, PCNs, Phthalates, Pesticides, Furans (small to large scale)
- Synthetic methods and analytical results proper documentation through an online file maker.
- Cross collaboration with other departments (QC and Production) relative to the final pure material. Custom formulation and custom synthesis to satisfy customer needs.

08/2014 – 06/2019 Senior Research Scientist, DFG Postdoctoral Fellow, Rutgers University – Newark (Prof. Frieder Jäkle)

Key Accomplishments:

- Conducted research on Lewis pairs in particular systems based on phosphine donor moieties and Lewis acid acceptor (B, Hg) for catalytic organic transformations
- Supported the effective and efficient operations and maintenance of research equipment
- Supported the writing and submission of manuscript resulting from research, which include, but is not limited to, writing, editing, proofreading, discussing, analyzing and seminar presentation.

03/2010 – 07/2014 Research and Development Scientist, Alexander von Humboldt (AvH) Postdoctoral Fellow, Technical University of Braunschweig (Prof. Dr. Matthias Tamm)

Key Accomplishments:

- Developed new efficient palladium catalysts based on trocicenyl phosphines for Suzuki-Miyaura and Buchwald-Hartwig cross coupling reactions of sterically hindered aryl halides
- Synthesized and fully characterized siloxane-trocicenophanes and studied of their thermal and anionic ring opening polymerization behavior
- Managed the cooperation platform with the companies Sigma Aldrich and Tokyo Chemical Industry (TCI) for the commercialization of the discovered palladium catalyst,

EDUCATION

- Full Stack Web Developer Certificate, UCONN School of Engineering, CT, USA
- PhD (Organometallic Chemistry), Advisor Prof. Dr. Klaus Jurkschat, Technical University of Dortmund, Germany;
- DIPES II (High School Teacher Certification), University of Yaounde I
- MSc. (Inorganic Chemistry), University of Yaoundé I
- BSc. (Chemistry), University of Yaoundé

HONORS AND AWARDS

- 08/2014 – 07/2017 Postdoctoral Fellow, German Research Foundation (DFG)
- 02/2011 – 07/2013 Postdoctoral Fellow, Alexander von Humboldt Foundation (AvH)
- 04/2006 – 09/2009 Graduate Student Fellow, German Academic Exchange Services (DAAD)

SELECTED PAPERS

- *Diferrocenylmercury-Bridged Diphosphine: A Unique Chiral, Ambiphilic, and Redox-active Bidentate Ligand*, Alain C. Tagne Kuate, Roger. A. Lalancette, Frieder Jäkle, *Angew. Chem. Int. Ed.* **2018**, 57, 6552-6557.
- *Phosphane-Functionalized Cycloheptatrienyl-Cyclopentadienyl Titanium Sandwich Complexes: Phosphorus Ligands with an Integrated Reducing Agent for Pd(0) Catalyst Generation*, Alain C. Tagne Kuate, Soheila Sameni, Matthias Freytag, Peter G. Jones and Matthias Tamm, *Angew. Chem.* **2013**, 125, 8800–8804; *Angew. Chem. Int. Ed.* **2013**, 52, 8638–8642

SELECTED TALKS

- Ferrocene-based Planar Chiral Lewis Pair Systems”, Pacificchem, **December 15–20, 2015**, Honolulu, Hawaii
- Phosphane Ligands with an Integrated Reducing Agent for Pd(0) Catalyst Generation”, XIIth Ferrocene Colloquium, **February 17–18, 2014**, Innsbruck, Austria