

Patrick Urbankowski

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LinkedIn : [linkedin.com/in/purbankowski](https://www.linkedin.com/in/purbankowski) • GitHub (personal): github.com/psu23 • Portfolio: psu23.github.io/patrick

Full Stack Web Developer with an Engineering background and driven by discovery and innovation. Experienced in cross-team collaboration, project management and mentorship. Co-founder of studio that creates innovative apps that connect people and focus of improving lives and engage users to interact with each other. Commitment to discovering paths to technologies that improve applications to provide users and teammates with the most seamless and streamlined experience.

Technical Skills

Languages: Bootstrap, CSS3, Express, Firebase, GQL, Handelbars.js, HTML5, Ionic, JavaScript, jQuery, JSON, Materialize, Material-UI, Matlab, MongoDB, MySQL, Node, React.js, React Native, Socket.io & TypeScript

Applications: Abaqus, Ableton, Adobe, Android Studio, CasaXPS, CrystalDiffract, CrystalMaker, Expo, Factsage, GitHub, Grams, Igor, Maple, Microsoft Office Suite, MySQL Workbench, Panalytical X'Pert, Photoshop, PHI Multipak, Rigaku XRD, SingleCrystal, SolidWorks, SourceTree, Visual Studio & VS Code

Laboratory: Discovery of nanomaterials for quantum computing and spintronic applications, X-ray photoelectron spectroscopy, X-ray diffraction, scanning electron microscope, small-angle X-ray scattering

Selected Projects

Pennsylvania School Boards Association Career Gateway | GitHub: [private repo](#) | App: edcareergateway.com

- Web application that allows you to find, apply for and post job opportunities in public education in Pennsylvania
- Responsible for the front-end of the application.
- Primary tools: React, Node.js, TypeScript, CSS, Formik, JavaScript, HTML5, Material-UI & MySQL

TennisMatch | GitHub: github.com/greg-a/tennis-match-react | App: tennis-match-react.herokuapp.com

- An application that allows users to find others to play tennis with and schedule matches, chat and share availability
- Responsible for the front-end of the application and UI, including implementation of live feed
- Tools: Bootstrap, Crypto, CSS3, Express, FullCalendar, JavaScript, jQuery, HTML5, Materialize, Material-UI, Moment.js, MySQL, Node.js, Passport.js, React Native, React.js, React Router, Sequelize & Socket.io

Youjuke (Version 2.0) | GitHub: github.com/greg-a/youjuke2 | App: youjuke2.herokuapp.com

- A music forum that allows groups of visitors to compile a shared playlist, vote on track order and listen to it together live. Uses MySQL databases to allow members to create custom listening rooms and allow for users to create accounts.
- Developed app with one other developer. Responsible for the development of the front-end of the app and solely designed the UI with JavaScript, Bootstrap, Materialize and Express handlebars
- Tools: APIs (Deezer), Bootstrap, Chart.js, CSS3, Express (and Handlebars), JavaScript, jQuery, HTML5, Materialize, MySQL (Workbench, Node package), Node.js, Passport.js & Sequelize

Experience

Full Stack Developer

Feb 2021 - Present

Pavone Marketing Group, Inc.

remote

Full stack developer of web applications for several external clients. Selected projects include:

- + *Pennsylvania School Boards Association Career Gateway*
 - On developer team for launch (Aug 2021) of a React and Node-based job search web application for seekers and posters of career opportunities in the Pennsylvania public school system.
 - Had weekly touchpoints with clients to immediately implement feedback and improve application.
- + *Kompete (in production)*
 - On developer team of three for application used for data capture and management tools for Athletic Combines.
 - Primary tools used to build application: React, TypeScript and Node.js.

Co-Founder, Frontend Developer

Sep 2020 - Present

TennisMatch

remote

Co-founded studio for developing mobile apps including TennisMatch

- Responsible for front-end/UI of apps
- Coordinated weekly meetings with co-founders via Slack and Zoom
- Set milestones for app development and deployment, assisted in coordinating consumer testing

Frontend Web Developer

Jan - Feb 2021

Sckedio

remote

Internship at startup for app that is a platform that connects product designers, manufacturers and interested consumers

- Assisted in building front-end of the app with React.js and Material-UI
- Coordinated communication between frontend team-members, backend team-member and founders via Slack and Zoom

Associate Investigator

Oct 2019 - Mar 2020

DuPont (Experimental Station Core Analytical Sciences)

Wilmington, DE

Saved businesses in DuPont in danger of plant shutdowns by using programming languages like Matlab and various software packages to design analysis methods and provide compelling data models that guided product improvement.

- Provided solutions to problems in DuPont businesses by conducting material characterization studies of various materials and products including Tyvek, Kapton and Kevlar.
- Through analysis, determined processing-property-structure-performance relationships to diagnose synthesis issues or improve products by suggesting alternative fabrication approaches.

Graduate Student Research Assistant

Sep 2014 - Jun 2019

Drexel University (A.J. Drexel Nanomaterials Institute)

Philadelphia, PA

Discovered over six new nanomaterials that have applications in quantum computing and energy storage.

- Guided colleagues' research and success by serving as primary XPS and XRD technician and analyzer for a group of 50+ members and was previously a chemical purchaser and supply inventory manager for the group (2014-2016).
- Mentored and served as research manager for an undergraduate student.
- Three papers authored are Highly Cited papers (top 1% of the academic field) and two are Hot Papers (top 0.1% of papers published in the field in the past two years) on Web of Science. Nearly 2000 citations on all publications.
- Presented research at several conferences with several publications in high impact factor journals
- Awards: Drexel University College of Engineering Outstanding Dissertation Award (Apr 2019) • Teck-Kah Lim Graduate Student Domestic Travel Subsidy Award (Oct 2018) • Drexel Provost Fellowship (2014 - 2016)

Undergraduate Researcher

Sep 2012 - May 2014

Rutgers University

New Brunswick, NJ

- Projects: Sn doping of lead-free piezoelectric materials • Determining environmental effect of corrosion on acid-treated steel
- Awards: Malcolm G. McLaren Undergraduate Scholarship (merit scholarship, 2013) • Emanuel Turner Scholarship (2 merit scholarships, 2012, 2013) • Rutgers Academic Excellence Award (awarded to top 10% GPA holders, 2012).

Engineering Intern

May 2012 - Aug 2012

Bergen County Department of Public Works

Hackensack, NJ

- Transcribed required maintenance and repair onto CAD drawings of county bridges and roads.

Education**Full Stack Web Development Certificate: University of Pennsylvania, Philadelphia, PA**

- A 24-week intensive program focused on gaining technical programming skills.

Doctor of Philosophy: Drexel University, Philadelphia, PA

- Major: Materials Science and Engineering (Advisor: Prof. Yury Gogotsi)
 - Dissertation Title: Synthesis of Two-Dimensional Transition Metal Nitrides
 - Google Scholar (h-index: 14): [bit.ly/psu-scholar](https://scholar.google.com/citations?user=bitlypsu-scholar)

Bachelor of Science: Rutgers University, New Brunswick, NJ

- Major: Materials Science and Engineering, *summa cum laude*