

# Patrick Urbankowski

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

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*Full Stack Software Engineer with strong passion for UX/UI design and user empathy. Experienced in cross-team collaboration, project management and mentorship. Developer and designer of several innovative apps that strive to connect and engage users. Commitment to providing users and teammates with seamless and streamlined experiences.*

## Technical Skills

**Languages/Technologies:** React, Node, TypeScript, JavaScript, Angular, Bootstrap, CSS3, Express, Fastify, Firebase, Git, GraphQL, Handlebars.js, HTML5, Ionic, JavaScript, jQuery, JSON, Materialize, Material-UI, Matlab, MongoDB, MySQL, N1QL, Python, React Native, Redis, Socket.io

**Applications:** Abaqus, Ableton, Adobe Photoshop, Adobe XD, Amazon Web Services (AWS), Atlassian (Jira, Confluence), Couchbase, Confluent, Docker, Expo, Figma, GitHub, Maple, Microsoft Office, MySQL Workbench, Slack, SolidWorks, SourceTree, Visual Studio & VS Code

## Experience

### Software Engineer

Dec 2021 - Present

#### Relay Network

Full-time, Remote

*Full-Stack Software Engineer on Integrations team, which develops internal features that improve the experience of client integrations with the platform.*

- + Primary languages: TypeScript, React, JavaScript, Angular, Node
- + Developer of front-end and user interface (UI) efforts on team.
- + Liaison between developers and UX/UI team: develop features from wireframes, mockups and design meetings.
- + Using Jira and Agile methodology, manage epics and sprint work on client-facing UI feature that allows clients and users to manage their integrations independently, which saves hours of team's time weekly.
- + Participate in code reviews, write unit tests, develop bugfixes, coordinate development with QA, deploy features using AWS, system monitoring with PagerDuty and Datadog

### Full Stack Developer

Feb 2021 - Oct 2021

#### Pavone Marketing Group, Inc.

Contract, 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*
  - 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.

### Frontend Web Developer

Jan - Feb 2021

#### Sckedio

Internship, 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)

Contract, 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**  
**Drexel University (A.J. Drexel Nanomaterials Institute)**

Sep 2014 - Jun 2019  
Full-time, 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) • 2021 Royal Society of Chemistry Faraday Division Horizon Award (2021)

**Undergraduate Researcher**  
**Rutgers University**

Sep 2012 - May 2014  
New Brunswick, NJ

- 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).

### 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

**Youjoke | GitHub: [github.com/psu23/youjoke](#) | App: [psu23.github.io/youjoke](#)**

- 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

**TennisMatch | GitHub: [github.com/greg-a/tennis-match-react](#)**

- 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

### Education

**Google UX Design Professional Certificate: Coursera, Remote**

- A 6-month course on user experience (UX) design in which the foundations of the design process and user research are applied to building wireframes and interactive prototypes.

**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: 15): [bit.ly/psu-scholar](#)

**Bachelor of Science: Rutgers University, New Brunswick, NJ**

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