

**Andrew Hsu**  
*Software Engineer*

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My project portfolio: <https://drewhsu86.com> • My Github: <https://github.com/drewhsu86>

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Software engineer with an educational background in electrical engineering. Looking to build my career by leveraging experience in mathematics and research and dive heavily into programming. As a dedicated, logical and open-minded individual, I aim to bring my strengths in problem solving and a calm, measured approach to every professional challenge.

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TOPICS AND TOOLS

- |              |           |                      |                           |
|--------------|-----------|----------------------|---------------------------|
| • Javascript | • React   | • Angular            | • Python                  |
| • HTML/CSS   | • Nodejs  | • Express            | • SQL                     |
| • MongoDB    | • C#/.NET | • OAuth2, SAML, OIDC | • Mathematical Background |
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EXPERIENCE HIGHLIGHTS

**STONEX**, Remote, June 2022 – Present

**Engineer II**

- Collaborated on a team of software engineers that develop and maintain an application used by 3000 brokers and containing over 38,000 accounts to trade futures and options
- React frontend and C#/.NET backends
- Personally executed and delivered a project to create a new .NET backend and SQL database for streaming up to date intraday trading data (on a few minutes basis) to the frontend accounts view

**AUTH0**, Remote, November 2020 – May 2022

**Developer Support Engineer II**

- Troubleshoot and respond to technical issues from Auth0 customers for a wide range of topics, involving:
  - Auth protocols/specifications including OAuth2, SAML, and OIDC
  - Commonly used web app frameworks, including SPAs using Javascript/Angular/React
  - Auth0 products and features, including the Auth0 dashboard, APIs, and Javascript scripts/templates
- Serve customers through both written responses and teleconference calls

**EITRI FOUNDRY**, Orlando, FL, January 2017 – March 2020

**Senior Technology Manager**

As a founding member of a solar energy developer and engineering, procurement, construction (EPC) company, I wore many hats both as a project developer as well as an electrical engineer.

- Drafted preliminary site plans and electrical layouts and Request-For-Proposal (RFP) response documents to allowed Eitri to bid for solar projects.
- Under the supervision of a licensed professional engineer, prepared Issued-For-Construction engineering diagrams for 3 solar sites in Ohio, totaling 15 million USD in project sizes.
- Developed Excel tool that shows potential savings from reduced power usage due to solar for Ohio municipality, allowing our company to secure the agreement for a 3 million dollar solar project

**NASA AMES RESEARCH CENTER**, Moffett Field, CA, November 2015 - November 2016

**Post-Doctoral Researcher**

# Andrew Hsu

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Conducted research on two power systems projects.

- Assembled testbed and managed preliminary testing for High Voltage Hybrid Electric Plane (HVHEP) project and oversaw simulations of motor output for HVHEP project.
- Completed research on impact of degraded electronic speed controllers (ESCs) on motor performance and heat production, including designing testbed and sensors to create data on speed, voltage, current and temperature.

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## EDUCATION & CREDENTIALS

**General Assembly – Software Engineering Immersive** | General Assembly, New York, NY

**Ph.D. in Electrical and Computer Engineering** | Carnegie Mellon University, Pittsburgh, PA

*Thesis: A Network Graph-Based Framework for Modeling, Calculating and Controlling Feasible Electric Power Delivery*

**Master of Science in Electrical and Computer Engineering** | Carnegie Mellon University, Pittsburgh, PA

**Bachelor of Science in Electrical Engineering** | Columbia University, New York, NY

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## PATENTS

Ilić, M. and Hsu, A. (2015). "General Method for Distributed Line Flow Computing with Local Communications in Meshed Electric Networks," US Patent Number 905453, filed January 5, 2012, issued June 9, 2015.

Ilić, M. and Hsu, A. (Application). "Autonomous Methods, Systems, and Software for Self-Adjusting Generation, Demand, and/or Line Flow Reactances to Ensure Feasible AC Power Flow," US Patent Application Number: 20140371940, filed June 14, 2014